

NL Medical Imaging Schedule of Unit Values

Adapted from MIS Standards 2022

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Introduction

MIS NOTES:

- **Highlighted areas reflect CIHI revisions whose implementation is not yet determined in NL**
- Medical Imaging billing practices are highly variable across Canadian regions, provinces and territories; therefore Radiologists' billing schedules are not a consideration of, nor are they incorporated into the Medical Imaging workload measurement system (WMS).
- The presence of A (i.e. GR905A) in MIS codes indicates a NL distinction, usually when a MIS code was reused by CIHI and therefore NL would like to differentiate this exam as it would have a different meaning historically.

NL Schedule of Unit Values Description

The schedule of unit values provides users with a comprehensive list of exams/activities performed in medical imaging. Each activity is assigned a three-digit code between 100 and 900 which is preceded by two-letter acronym for the exam modality (e.g., NM for nuclear medicine). There is no requirement for an MI functional centre to change their code numbering system and add in the prefix of GR, US or other mnemonic unless it is useful to do this. Whatever codes are adopted, they are for internal purposes only. They identify specific exams and ensure that the exams, their counts and workload units are reported accurately and according to the current version of the MIS Standards.

These codes are accompanied by a brief description and the average unit value and the item for count, which are used as the basis to collect the workload and service activity statistical of the various functional centres. Each unit value incorporates all activities listed in the conceptual model for the Medical Imaging WMS for service recipient and for non-service recipient activity. This data is then reported using the chart of secondary statistical accounts (account number 1 07 ** - Workload Units – Service Recipient Activities – Diagnostic/Therapeutic, 1 90 ** - Workload Units – Service Recipient Activities and 4 57 ** - In-House Exams – Diagnostic/Therapeutic).

The unit values related to exams that are published in this section represent the average number of minutes required of the unit-producing service provider (e.g., medical radiation technologist, diagnostic medical sonographer) to perform all the steps needed to complete a defined exam once for the average service recipient under average circumstances. Case acuity variables are included in the average time workload unit value. The exception to the average service recipient statement are special needs service recipients for whom additional workload can be captured. Example: count extra workload using codes MI930 or MI931, and/or MI940 or MI941, and/or MI945 and/or MI970. To compare productivity and provide a mechanism for planning and decision-making, exam counts have been standardized and are provided in the schedule of unit values.

This workload measurement system assesses the average output per exam for similar functions and work performed in various facilities across Canada and takes into consideration workflow, technical protocols and resource utilization. Effort has been made with this update to provide clarity with regards to exam counts and terminology to provide managers with a sensitive decision-support tool. Where there are differences in productivity between similar facilities, an opportunity for consultation, reflection and application of best practices arises.

Any activity in the schedule of unit values can be utilized by any medical imaging functional centre if the unit value is accurate and reflective of the realistic average time required to perform a specified activity. Therefore, workload listed in various medical imaging modalities can be captured in any other medical imaging functional centre, if applicable; however, these codes are only listed once, in the modality for which that it is most often used.

Where the exam typically requires more than one technologist to complete it, the published unit value reflects the total workload units for all the technologists expected to be involved in performing that exam. The established average values included in the schedule of unit values were developed taking into consideration various technologies, age of equipment and various types of practice and practice settings (e.g., ambulatory clinic, acute care hospital).

Includes the actual exam itself as well as monitoring or taking the service recipient's vital signs during and following the exam, establishing venous access, administering radiopharmaceuticals and/or contrast media, or other therapeutic medications, (including injectables), maintaining oxygen therapy, preparing the service recipient for transport and conducting activities related to the care of the service recipient. The average unit value is inclusive for all the above except where additional unit values are specified.

If the published average time value for an exam is not reflective of the time spent in performing this activity at a particular health service organization (e.g., pediatric, special needs, geriatric, psychiatric), a standard time should be developed for the exam. A standardized timing protocol—conducting a time study has been developed to assist users when establishing the standard time. In these circumstances, organizations are encouraged to submit their time study results to CIHI at fsi@cihi.ca for review and consideration for inclusion in the Schedule of Unit Values.

NOTE: Waiting time should never be included in time studies. For example, if staff must wait for another health service provider to complete their tasks before the MRT can carry out the exam, the waiting time should not be included. Wait time is lost time, not non-service recipient time.

If an exam is not listed in the schedule of unit values, users should establish a standard time using the standardized timing protocol and submit the information to CIHI using the Assignment of Unit Values Requested Form. (See 2019 MIS Standards for form)

TBD unit values

Some activities show a workload unit value as TBD. This means that the average workload unit is yet "To Be Determined" as there were no time studies or expert opinions available at the time of publication. If any organization would like to assist in determining a unit value for one of these activities, they are encouraged to perform a time study and submit the data to CIHI for review by a working group as part of the next revision cycle.

For unit values related to quality control (QC) and equipment maintenance, refer to the non-service recipient activity, functional centre activities category.

Items for Count

To record medical imaging workload, users should refer to the definitions of the items for count provided in this section. The item for count for service recipient activities is "exam" whereas; the item for count for non-service recipient activities may be occurrence, round trip, day, week or activity.

Exam

A defined technical investigation using an imaging modality to study one body structure, system or anatomical area that yields one or more projections for diagnostic and/or therapeutic purposes. Exceptions include routinely ordered multiple body structures that by common practice or protocol are counted as one exam (e.g., GR230 Skeletal Survey (1-13 projections). Includes multiple projections (AP and lateral) of any site.

An exam is considered 'bilateral' if both extremities are imaged using the same exposure and the exam count is one. However, if the projections of bilateral extremities (e.g., AP, LAT and Oblique) cannot be imaged using the same exposure, or if both extremities (e.g., left and right hand) were imaged unilaterally for other reasons (e.g., comparison imaging), count as two exams. ***In NL a bilateral exam will equal an exam count of 2 in most cases.**

When a service recipient undergoes additional imaging by other modalities, an additional defined exam is also counted, as applicable. For example, count workload and 1 exam for a GR140 and add the workload and 1 exam for US215. Another example is when the service recipient undergoes an unenhanced CT head (CT105) and is brought to IR suite for IR310 embolization of an aneurysm; count one exam for each MI modality (one exam for CT105 plus one exam for IR310).

Occurrence

An event or incident that happens or takes place at an instance of point in time.

Round Trip

Travel from the medical imaging functional centre to a remote/distant/satellite site, and the return trip.

Day

The period of 24 hours from 0001 to 2400 hours.

Week

The period of seven consecutive days from Sunday to Saturday inclusive.

Activity

Performing a specific function or duty.

General Information and Recording Instructions —Service Recipient Activities

The general information and recording instructions below apply to all sections of the medical imaging schedule of unit values. Some modalities have additional information and recording instructions that are specific to them.

Exams that are listed by modality are grouped for ease of reference. Codes listed in a modality are not mutually exclusive from other modalities. They can be used by any modality provided the exam count and unit values are reflective of the workload associated with the exam and an equivalent exam is not already listed in the modality and that it is reported in the functional centre where the work took place. There are some codes that are applicable to many modalities or even more than one section in one modality; however, these codes are generally only listed once, in the modality for which it is most often used.

Activities for Which Additional Workload Units are Recorded

There are certain activities listed in the schedule of unit values that list workload units without exam counts. These activities when performed in conjunction with medical imaging exams/activities by unit-producing personnel (UPP) of the medical imaging functional centres require the recording of workload units in addition to the workload units for that exam without an exam count. These additional units are listed in various sections of the schedule of unit values as well as in the miscellaneous section. For those activities listed in the miscellaneous section of the schedule of unit values, the workload units are recorded and reported in the functional centre where that activity is performed. These activities and corresponding workload units are recorded using the same category and type of service recipient as that of the exam.

Examinations Performed Outside the Department

Under certain circumstances, the medical radiation technologist/diagnostic medical sonographer must leave the medical imaging functional centre/department to perform an exam. The following service recipient workload units are added once per service recipient for each occasion during which services are delivered:

- Portables: When exams are performed on a nursing unit (e.g., nursery, emergency, intensive care), and additional time is required to set-up the portable machine and assist the service recipient, the additional workload units are recorded using code MI900.

- Operating Room: When exams are performed in the operating room or similar sterile environment and additional time is required to prepare the portable machine and to gown prior to entering the operating room, the additional workload units are recorded using code MI910.
- Isolation (e.g., MRSA/VRE, Latex allergy): When exams are performed when service recipients are in isolation and additional time is required to gown, set-up equipment, or to clean the imaging equipment/suite post exam, etc., the additional workload units are recorded using code MI920. *(Deleted by CIHI in 2019 revision. NL will continue to utilize MI920; WLU adjusted to 10-minute increments.)*

Failed Exams

For an attempted failed exam record the same number of units and exam count as a successful exam using the same exam code. The published workload units are derived from average time methodology, and it is anticipated that the number of failed exams is relatively few; therefore, the net effect on the average time is not material and the workload units are calculated accordingly.

Preliminary and Delayed Images

No extra workload units are assigned unless specified in the schedule of unit values for that modality. Delayed images are part of the original exam unless otherwise specified in the exam definition. Nuclear Medicine exams often involved delayed imaging therefore in the Nuclear Medicine modality, each exam definition specifies the exact number of delayed images or assumes a maximum of two delayed images if unspecified in the exam definition.

Additional Projections

Unless specified in the description, each exam is considered routine and includes all projections. For projections taken, in addition to the standard protocol, as specified in the exam definition, record additional workload units and a zero exam count as indicated in the schedule of unit values. For digital imaging, when digital images are acquired, reviewed by the physician and, while the technologist remains at the bedside, and a request is made to repeat the imaging, count one exam only. This scenario would be considered as multiple projections for one exam. Examples might include imaging associated with NG tube insertion or a fractured extremity that might require further manipulation. If the MRT has completed the exam and later another digital imaging is requested, count this as a second exam.

Non-Adult Age Groups

Additional workload can be counted for non-adult service recipients (e.g., pediatric, child, neonatal). See one of codes MI931, MI935, MI940, MI941, and/or MI945 or MI970 for more detail.

- Pediatric/Child service recipients are defined as “>28 days of age to locally defined maximum age”. Generally, the maximum age can range from 16-17 years.
- Neonate service recipients are defined as “from birth to 28 days of age”.

Conscious Sedation or General Anesthetic

For service recipients who require extra assistance or monitoring because they have been given conscious sedation or a general anesthetic: record additional workload units. For conscious sedation (Adults): code MI930 with 10 workload units. For conscious sedation (Child): code MI931 with 20 workload units. For a general anaesthetic (Adult and Child): code MI935 with 30 workload units. These workload units are recorded for only direct service recipient care by unit-producing personnel (medical radiation technologists and diagnostic medical sonographers) and are not to be collected for waiting time.

Immobilization

For time spent when unit-producing personnel aid with immobilization of pediatric or special needs service recipients (e.g., pediatric, neonate, combative, psychotic, severe morbid obesity, or confused service recipients). These additional workload units are recorded using one of codes MI940 or MI941.

Transfer

For time spent when unit-producing personnel provide assistance with mechanical lift and/or transfer devices onto and/or off of the imaging equipment. These additional workload units are recorded using code MI945.

Fluoroscopy

For exams performed by fluoroscopy, an extra workload unit value is added, *5 excepting Interventional Radiology where fluoroscopy time is already integrated into the published unit values. For all other imaging modalities, unless specified in the exam definition, the unit value may be added for each fluoroscopic adjustment required, counted in 10-minute increments, such that the total time performing fluoroscopy is consistent with the total workload units. This includes fluoroscopy using a C-arm or O-arm. Note that the total workload units do NOT include any waiting time. If inclusion of fluoroscopy is not specified in the exam definition (except for Interventional Radiology), add workload for fluoroscopy using code MI955 from the Miscellaneous section of the schedule of unit values.

Post Processing Reconstruction

The average time for post processing reconstruction (PPR) is 20 workload units that are integrated into the schedule of unit values as a component activity for all medical imaging modalities except for Nuclear Medicine and MRI. Nuclear Medicine is assigned 30 minutes for the average time for post processing reconstruction component activity. MRI post processing times are quite variable; therefore, these values are not integrated into the MRI schedule of unit values. The PPR workload is captured instead using code MR105 in increments of time. To capture workload units greater than the average time already integrated for each modality, use code MI950 for additional post processing workload. If the images are reconstructed through computer automation with no hands-on technical intervention, workload units are not captured as no unit-producing personnel (UPP) hands-on time is involved.

Tomography

For exams that regularly include tomography as a component (e.g., IVP), the unit value includes this component activity. For exams that do not regularly include tomography, use actual time methodology for the workload units and add to the exam time value. These additional units should be reported under code MI960 as service recipient activity, Miscellaneous. If tomography is performed in the absence of a preliminary x-ray, use code GR925. Advanced tomography technology is captured using code GR910, an exam designating for volume radiology tomography technology.

Counselling service recipient including guardians, parents or significant others

For unusually extended amounts of time spent by unit-producing personnel providing information, counselling or support to the service recipient, including their guardians, parents or significant others. Routine counselling activities such as providing education and preparation instructions are component activities that are integral to every medical imaging exam.

The additional workload units that are recorded using code MI970 provides 15 workload units and an exam count of zero. This code may be used in aggregation with other codes MI940 or MI941 for pediatric, geriatric, and/or any special needs service recipients and/or MI945. Code MI970 is intended for collecting workload for unusually extended counselling activities.

The breast navigator (post-mammography) consultation role counts as additional workload only in the mammography modality only. This is due to higher intensity counselling required in this functional centre and can be referenced at code MM250. As always, workload can be counted only if performed by unit-producing personnel.

IV Fluid Administration

For exams that require IV fluid administration; includes provision of IV fluids for hydration, prevention of nephrotoxicity or other adverse effects of contrast or other radiopharmaceuticals, or for other physiologic requirements such as full bladder, maintenance of cardiac output or fluid challenges. These incremental additional units should be reported under MI980 as service recipient activity, Miscellaneous.

General Information and Recording Instructions—Non-Service Recipient Activities**Travel Time**

In addition to each of the above, non-service recipient workload units are collected for travel with or without the portable machine to and from the service recipient. Record actual or standard time using code 2280 Travel.

Copy-Digitizing Images

When the copying or digitizing of images is done separately from the routine exam, 10 workload units are added per exam. These additional units should be reported under code 2286 as non-service recipient activities.

Counting Exams

All exams described in the schedule of unit values have been given an exam count. Each corresponding unit value represents the total workload units for the number of exams shown.

The following examples are provided for clarification:

1. Code CT107 in computed tomography represents the exam Head, combined non-enhanced and enhanced- includes:
 - a) Brain
 - b) Orbits
 - c) Sella turcica
 - d) IAC and/or posterior fossa
 - e) Facial bones
 - f) Sinuses
 - g) Nasopharynx

One exam includes any combination of anatomical parts listed (usually the service recipient is not repositioned). Record 1 exam and 29 workload units.

2. Code US830 in ultrasound represents the exam "Hips bilateral". Report 1 exams and 30 workload units.
3. Code IR 565 in interventional radiology represents an activity called "Cryosurgery/Radiofrequency ablation/Thermoablation". Report an exam count of zero and 62 workload units.

Outline of the Schedule of Unit Values

The schedule of unit values is organized in the following manner:

Service Recipient Activities	Code Series
Diagnostic/Therapeutic Intervention	
General Radiography	GR100-GR999
Head	GR100-GR199
Spine	GR200-GR299
Shoulder Girdle and Upper Extremities	GR300-GR399
Pelvic Girdle and Lower Extremities	GR400-GR499
Thoracic Cage and Contents	GR500-GR599
Gastro-intestinal (G.I.) Tract	GR600-GR699

Genito-urinary (G.U.) Tract	GR700-GR799
Bone Mineral Density	GR800-GR899
Mammography	MM100-MM999
Screening Mammography	MM100-MM199
Diagnostic Mammography	MM200-MM299
Interventional Radiology	IR100-IR999
Modifier Codes for IR	IR100-IR199
Vascular Diagnostic – Arterial	IR200-IR299
Vascular Therapeutic	IR300-IR499
Non-Vascular Interventional	R500-IR699
Computed Tomography	CT100-CT999
Head	CT100-CT199
Neck and Spine	CT200-CT299
Chest, Abdomen and Pelvis	CT300-CT399
Extremities	CT400-CT499
Miscellaneous	CT500-CT599
Ultrasound	US100-US999
General	US100-US199
Abdominal Ultrasound (Includes Non-Obstetrical Pelvis)	US200-US299
Echocardiography Ultrasound (Fetal, Pediatric, Adult)	US300-US399
Obstetrical Ultrasound	US400-US499
Ophthalmic Ultrasound	US500-US599
Neurological Ultrasound	US600-US699
Vascular Ultrasound	US700-US799
Small Parts Ultrasound	US800-US899
Miscellaneous	US900-US999
Nuclear Medicine	NM100-NM999
General	NM100-NM199
Bone	NM200-NM299
Lung	NM300-NM329
Cardiovascular	NM330-NM399
Circulatory/Lymphatic	NM400-NM419
Endocrine	NM420-NM499
Central Nervous	NM500-NM549
Kidney	NM550-NM599
Soft Tissue	NM600-NM699
Gastro-Intestinal	NM700-NM799
Miscellaneous General Imaging	NM800-NM809
Therapeutic	NM810-NM899
Non-Imaging	NM900-NM999
Position Emission Tomography/Computed Tomography (PET/CT)	PT100-PT999
Cardiac Catheterization Diagnostic Services	CC100-CC999
Magnetic Resonance Imaging	MR100-MR999
Miscellaneous	MI900-MI999

Non-Service Recipient Activities	Code Series
Functional Centre Activities	2201-2300
Organizational/Professional Activities	2301-2400
Teaching/In-Service	2401-2500
Research	2501-2600

Service Recipient Activities —Diagnostic/Therapeutic Intervention

Service recipient activities are unit-producing personnel activities that involve the delivery of services to or on behalf of a specific service recipient. These activities directly contribute to the fulfillment of the service mandate of the functional centre.

In the medical imaging WMS, the service recipient activity category is diagnostic therapeutic intervention.

The following table provides a list of the exams/activities performed within the various medical imaging functional centres.

General Radiography

General Information and Recording Instructions for General Radiography:

1. An activity in the schedule of unit values can be utilized by any medical imaging functional centre if the unit value is accurate and reflective of the realistic average time required to perform a specified activity. Therefore, workload listed in various medical imaging modalities can be captured in any other medical imaging functional centre, if applicable; however, these codes are only listed once, in the modality for which that it is most often used.
2. The average time for post processing reconstruction for General Radiography is 20 workload units that are integrated into the schedule of unit values. To capture workload units greater than the average time already integrated into the unit value (e.g., beyond 20 minutes for General Radiography, see code MI950 for additional post processing workload. If the images are reconstructed through computer automation with no hands-on technical intervention, workload units are not captured as no unit-producing personnel (UPP) hands-on time is involved.
3. Please see Items for Count for the definition of “exam” in Medical Imaging.

4. An exam is considered 'bilateral' if both extremities are imaged using the same exposure – the exam count is one. However, if the projections of bilateral extremities (e.g., AP, LAT and Oblique) cannot be imaged using the same exposure, or if both extremities (e.g., left and right hand) were imaged unilaterally for other reasons (e.g., comparison imaging), count as two exams. ****In NL a bilateral exam will equal an exam count of 2 in most cases.***
5. Fluoroscopy averages 7 workload units and is integral to certain general radiography exams where specified. Where fluoroscopy time exceeds 7 minutes, use code MI955 to capture this workload as directed.
6. On average CR (computed radiology) technology, (e.g., using an imaging plate/cassette) takes 5 minutes longer than DR (direct radiology) technology. In this case, use GR930 to capture the extra workload associated with CR technology. If the functional centre's technology is mixed between CR and DR technology, perform a time study to calculate the proportion of CR to DR exams, to add on a proportion of GR930 workload units.
7. The component activities within the conceptual model for medical imaging include exam preparation activities, amongst other activities including room preparation, initial handling/set-up, cleanup, service recipient assessment (pre & post exam monitoring), consent and instructions, IV insertion, administration of radiopharmaceuticals, contrast media and/or medications etc. Please refer to the Medical Imaging Conceptual Model for a list of component activities. Note: this workload applies only to medical radiation technologist unit-producing personnel in the medical imaging functional centre. For exams that require IV fluid administration for hydration, prevention of nephrotoxicity or other adverse effects of contrast or for other physiologic requirements such as full bladder, maintenance of cardiac output or fluid challenges or for the administration of other radiopharmaceuticals, additional workload units should be reported under MI980 as service recipient activity, Miscellaneous.

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
Head				
GR001	Attempted exam head (NL added)	N/A	30	1
GR002	Attempted exam body (NL added)	N/A	30	1

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
GR003	Attempted exam extremity (NL added)	N/A	30	1
GR004	Attempted radiography (NL added)	N/A	10	1
GR005	Attempted exam fluoroscopy (NL added)	N/A	30	1
GR105	Skull (1-3 projections) Also count workload for GR195 for additional projections >3	15	15	1
GR110	Special skull. Includes any one of: a) Zygomatic arches b) Mastoids (bilateral 1-6 projections) c) Orbits for foreign body localization d) Temporo-mandibular joint (TMJ) e) pituitary fossa (in NL) Count one exam for each area. For b) mastoids - also count workload for GR195 for additional projections >6	20	20	1
GR115	Orbit screening for MRI (1- 2 projections) Also count workload for GR195 for additional projections >2	10	10	1
GR120	Facial bones (1-5 projections) Also count workload for GR195 for additional projections >5	15	15	1
GR125	Mandible (1-5 projections) Also count workload for GR195 for additional projections >5	17	17	1

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
GR130	Nasal bones (1-3 projections) Also count workload for GR195 for additional projections >5	10	10	1
GR135	Sinuses (103 projections) Also count workload for GR195 for additional projections >5	15	15	1
GR140	Salivary gland area- no contrast media (e.g., plain films) <i>(moved to RF modality 2019)</i>	20	20	1
GR145	Dental full series (with bitewings)	20	Not used in NL Dictionary	1
GR150	Teeth, panorex, single projection or panorex lateral caphalic	11	Not used in NL Dictionary	1
GR905 Deprecat ed 2016 see GR905A to GR909	Arthrography – head, shoulder, girdle, upper extremities, pelvic girdle, lower includes extremities- includes any one of: Temporomandibular joint (head) Shoulder Girdle – unilateral Upper Extremities – unilateral Pelvic Girdle Lower Extremities – unilateral Note: GR905 is also referenced in other areas of the General Radiology schedule.	45	45	1
GR905A NL Code	Arthrography –Upper Extremities-unilateral Note: GR905A-GR909 is also referenced in other areas of the General Radiography schedule. Includes fluoroscopy time up to 7 minutes. Count MI955 for fluoroscopy time >7 minutes	45	45	1

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
GR906	Arthrography – Head – includes Temporomandibular joint (Head), Includes fluoroscopy time up to 7 minutes. Count MI955 for fluoroscopy time >7 minutes	45	45	1
GR907	Arthrography –Shoulder Girdle-unilateral. Includes fluoroscopy time up to 7 minutes. Count MI955 for fluoroscopy time >7 minutes.	45	45	1
GR908	Arthrography –Pelvic Girdle Includes fluoroscopy time up to 7 minutes. Count MI955 for fluoroscopy time >7 minutes.	45	45	1
GR909	Arthrography –Lower Extremities-unilateral Includes fluoroscopy time up to 7 minutes. Count MI955 for fluoroscopy time >7 minutes.	45	45	1
GR155	Dacrocystography (e.g., lacrimal sacs and associated structures) Includes fluoroscopy time up to 7 minutes. Count MI955 for fluoroscopy time >7 minutes.	35	35	1
GR160	Sialography (using contrast media) Includes fluoroscopy time up to 7 minutes. Count MI955 for fluoroscopy time >7 minutes.	40	40	1
GR195	Additional projections for any of the exams above (head)	10	Additional projections captured through drop down menu for extra WLUs	0

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
GR165	Shunt Study (includes AP, Lat Skull, AP Chest and AP abdomen)	15	15	1
Spine				
GR205	Cervical (1-4 projections) Also count workload for GR295 for additional projections >415	15	15	1
GR210	Thoracic (1-3 projections) Also count workload for GR295 for additional projections >3	13	13	1
GR215	Lumbar (1-3 projections) and Lymphangiogram follow up (2019 Revisions). Includes imaging for lumbar flexion/extension. Also count workload for GR295 for additional projections >3 For Lymphangiogram exam, may see also IR217, NM405 Lymphoscintigraphy [whole body], or MR450 or MR455.	13	13	1
GR220	Sacrum and/or coccyx (1-2 projections) Also count workload for GR295 for additional projections >2	13	13	1
GR225	Scoliosis series	18	18	1

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
GR230	Skeletal survey (1-13 projections) Includes multiple projections (AP and lateral) of multiple sites (e.g., spine, pelvis, femora, skull, shoulders and humeri, ribs) May also add MI931, MI935, MI940 or MI941 and/or MI945 as applicable. Also count workload for GR295 for additional projections >13	30	30	1
GR235	Complete (detailed) Spine (1-8 projections) Includes projections of the cervical, thoracic and lumbar spines as well as the sacrum/coccyx Also count workload for GR295 for additional projections >8	30	30	1
GR260	See IR435 for lumbar puncture myelogram Still in use in NL fluoro dictionary. Will be reviewed with IR dictionary modality.	N/A	45	1
GR295	Additional projections for any of the exams GR205-GR235- Spine	5	additional projections captured through drop down menu for extra WLUs	0
GR255	Facet injection or nerve block Includes fluoroscopy time up to 7 minutes. Count MI955 for fluoroscopy time >7 minutes.	45	45	1

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
GR265	Babygram (for postmortem exam)	12	12	1
GR270	Infant Skeletal Survey - Multiple placements (e.g., abdomen and chest)	20	20	1
Shoulder Girdle and Upper Extremities				
GR305	Shoulder, unilateral (1 to 3 projections) If each shoulder is imaged separately, count as two exams. Also count workload for additional projections >3 – see GR395 (GR395 not used in NL dictionary)	10	10	1
GR310	Scapula unilateral or bilateral (1-2 projections) If the scapulae are each imaged separately, count as two exams. Also count workload for GR395 for additional projections >2 (GR395 not used in NL dictionary) An exam is considered “bilateral” if both sides are imaged using the same exposure. <i>*In NL a bilateral exam will equal an exam count of 2 in most cases.</i>	10	10 Bilateral 15	1 Bilateral 2
GR315	Acromio-clavicular joints includes weight bearing Add 5 units for bilateral imaging. An exam is considered ‘bilateral’ if both sides are imaged using the same exposure. <i>*In NL a bilateral exam will equal an exam count of 2 in most cases.</i> If the two AC joints are each imaged separately, collect workload and exam count as two exams.	10 5	10 Left or right Bilateral 15	1 Bilateral 2

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
GR320	<p>Clavicle (unilateral or bilateral) (1-2 projections) Add 5 units for bilateral exam An exam is considered 'bilateral' if both sides are imaged using the same exposure. *In NL a bilateral exam will equal an exam count of 2 in most cases.</p> <p>If the two clavicles are each imaged separately, count as two exams. Also count workload for GR395 for additional projections >2 (GR395 not used in NL dictionary)</p>	10	10 Left or right Bilateral 15	1 2
GR325	<p>Upper Extremity– includes any one of: a) Unilateral Humerus b) Unilateral Elbow c) Unilateral Forearm, - includes radius and/or ulna d) Unilateral Wrist e) Unilateral Hand f) Unilateral Digit(s) g) Unilateral Hand and Wrist combined h) Unilateral Scaphoid (e.g., as direct follow-up exam to wrist imaging)</p> <p>Count once per each area imaged. An exam is considered "bilateral" if both sides are imaged using the same exposure; in this case, count additional 7 units and one exam only. If the two upper extremities are each imaged separately, count as two exams. *In NL a bilateral exam will equal an exam count of 2 in most cases.</p>	10 additional 7 workload unit	10 Some bilateral dictionary line items will be 17 but not all	1 Bilateral exams with 7 WLUs added will be considered 2 exams in "most" cases Some exams remain at 20 WLU

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
GR330	Bone length scanogram for upper extremities An exam is considered “bilateral” if both sides are imaged using the same exposure; in this case, count additional 5 units and one exam only. <i>*In NL a bilateral exam will equal an exam count of 2 in most cases.</i> If the two upper extremities are each imaged separately, count as two exams.	10	Not used in NL Dictionary	1
GR335	Bone age (1 projection)	8	Not used in NL Dictionary	1
GR336	Bone age (2 projections) Also count workload for GR395 for additional projections >2	13	Not used in NL Dictionary	1
GR390	Additional units when performing exams above with stress projections for Shoulder Girdle and Upper Extremities	6	Not used in NL Dictionary	0
GR395	Additional projections for any of the exams above- Shoulder Girdle and Upper Extremities Do not count if GR390 is also captured.	5	Not used in NL Dictionary	0
	See GR905A-GR909 for Arthrography- Head, Shoulder Girdle, Upper Extremities, Pelvic Girdle, Lower Extremities			

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
Pelvic Girdle and Lower Extremities				
GR405	Pelvis only (1 projection) Also count workload for GR495 for additional projections >1	8	8	1
GR410	Unilateral hip (2 projections) Also count workload for GR495 for additional projections >2	10	10	1
GR412	Bilateral Hip (1-5 projections) An exam is considered “bilateral” if both sides are imaged using the same exposure; in this case, count one exam only. <i>*In NL a bilateral exam will equal an exam count of 2 in most cases.</i> If each hip is imaged separately, count as two exams. Also count workload for GR495 for additional projections >5	17	17	2
GR415	Pelvis and unilateral hip (1-3 projections) so count workload for GR495 for additional projections >3	10	10	1
GR420	Pelvis and/or bilateral hip (1-5 projections) An exam is considered “bilateral” if both sides are imaged using the same exposure; in this case, count one exam only. <i>*In NL a bilateral exam will equal an exam count of 2 in most cases.</i> If the pelvis and/or unilateral hip is imaged separately from its opposite, count as two exams. Also count workload for GR495 for additional projections >5	10	10	1

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
GR425	Sacro-iliac joints (1-3 projections) Also count workload for GR495 for additional projections >3	12	12	1
GR430	Lower Extremity– includes any one of: a) Unilateral Toe(s) b) Unilateral Foot any part c) Unilateral Ankle d) Unilateral Tibia and Fibula e) Unilateral Knee f) Unilateral Patella g) Unilateral Calcaneus h) Unilateral Heel Count once per each area imaged. An exam is considered “bilateral” if both sides are imaged using the same exposure; in this case, count additional 5 units and one exam only. <i>*In NL a bilateral exam will equal an exam count of 2 in most cases.</i> If the two lower extremities are each imaged separately, count as two exams.	10 5	10 Some bilateral dictionary line items will be 15 but not all Some exams remain at 20 WLU	1 Bilateral exams with 5 WLUs added will be considered 2 exams in “most” cases. 1 2
GR490	Additional units when performing exams above with stress projections for Pelvic Girdle and Lower Extremities	6	6	0
GR440	Unilateral femur, including hip and knee (1-4 projections) Also count workload for GR495 for additional projections >4	11	11	1

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
GR445	Bone length, scanogram, lower extremity	18	18	1
GR450	<p>Hip fixation in operating room including hip projections Includes <u>all</u> fluoroscopy time. Do not also count workload for MI955. May also count code MI900 for the workload required to prepare the portable machine and MI910 for the workload required to gown/glove mask prior to entering the Operating Room.</p>	45	45	1
GR455	<p>Hip fixation in an operating room including intermedullary nailing (in NL IM nailing may include humerus, tibia, fibula, or femur) Includes all fluoroscopy time. Do not also count workload for MI955. Also count code MI900 for the workload required to prepare the portable machine MI910 for the workload required to gown/glove/mask prior to entering the operating room</p>	100	100	1
GR495	<p>Additional projections for any of the exams above – Pelvic Girdle and Lower Extremities Count once for every additional 3 sets of projections. Do not count if GR490 is also captured.</p>	5	WL for additional projections will be captured through dropdown menu for extra WLUs by RHA	0

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
GR497	Renal Osteodystrophy Series- for ESRD. For special needs service recipients, if applicable, consider also adding workload for any of codes MI931, MI935, MI940 or MI941 and/or MI970.	35	Not used in NL Dictionary	1
	See GR905A-GR909 for Arthrography- Head, Shoulder Girdle, Upper Extremities, Pelvic Girdle, Lower Extremities			
Thoracic Cage and Contents				
GR505	Chest (1-2 projections) (*Note when used in NL dictionary in combination with “abdominal series” or with “ribs” use 5 WLUs)	10	10	1
GR506	Additional projections for any Thoracic Cage and Contents exams	5	5	0
GR510	Ribs, unilateral (1-3 projections) If unilateral ribs are each imaged separately, count as two exams. Also count workload for GR506 for additional projections >3	10	10	1
GR511	Ribs, bilateral (1-4 projections) (e.g., for paediatrics) An exam is considered “bilateral” if both sides are imaged using the same exposure; in this case, count one exam only. * In NL bilateral exams are considered 2 exams in most cases. If unilateral ribs are each imaged separately, count as two exams. Also count workload for GR506 for additional projections >4	15	15	2

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
GR515	Chest and ribs (1-4 projections) Also count workload for GR506 for additional projections >4	15	15	1
GR520	Thoracic inlet/outlet	10	10	1
GR525	Sternum	12	12	1
GR530	Sterno-clavicular joints, bilateral	12	12	1
GR535	Nasopharynx, Neck Soft Tissue (1-2 projections) Also count workload for GR506 for additional projections >2	10	10	1
GR920	Pacemaker insertion, temporary or permanent See IR920 or for pacemaker implants occurring in the Cardiac Catheterization functional centre, see codes CC920 (temporary) or codes CC335, CC340, CC345 or CC350 (permanent) Still in use in NL fluoro dictionary. Will be reviewed with IR dictionary modality. Deprecated and reused by CIHI in 2019: surgical specimen see GR920A. Pacemaker see IR920	N/A	60	1
GR540	Bronchography Includes fluoroscopy time up to 7 minutes. Count MI955 for fluoroscopy time >7 minutes.	30	30	1
Gastro-Intestinal (G.I.) Tract				

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
GR605	Dynamic Speech study using contrast media, with/without speech language pathology (modified barium swallow) Includes fluoroscopy time up to 7 minutes. Count MI955 for fluoroscopy time >7 minutes.	30	30	1
GR606	Pediatric Dynamic Speech Study, with contrast Includes fluoroscopy time up to 7 minutes. Count MI955 for fluoroscopy time >7 minutes.	45	Not used in NL Dictionary	1
GR610	Abdomen (1 projection)	8	8	1
GR611	Abdomen (2-3 projections) Includes AP, upright, or decubitus Note: count chest as a separate exam – see code GR505. Also count workload for GR695 for additional projections >3	16	16	1
GR615	Esophagram, (video) Includes fluoroscopy time up to 7 minutes. Count MI955 for fluoroscopy time >7 minutes.	15	15	1
GR616	Feeding Studies Includes fluoroscopy time up to 7 minutes. Count MI955 for fluoroscopy time >7 minutes.	45	45	1
GR620	Upper G-I tract, single or double contrast Includes fluoroscopy time up to 7 minutes. Count MI955 for fluoroscopy time >7 minutes.	15	15	1

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
GR625	Small bowel series only Includes fluoroscopy time up to 7 minutes. Count MI955 for fluoroscopy time >7 minutes.	30	30	1
GR630	Upper G-I and Small Bowel Follow-Through Includes fluoroscopy time up to 7 minutes. Count MI955 for fluoroscopy time >7 minutes. For special needs service recipients, if applicable, consider also adding workload for any of codes MI931, MI935, MI940 or MI941, and/or MI970 and/or MI945.	45	45	1
GR631	Upper G-I and Small Bowel Follow-Through Pediatric	N/A	55	1
GR635	Small bowel enema Includes fluoroscopy time up to 7 minutes. Count MI955 for fluoroscopy time >7 minutes.	60	60	1
GR640	Hypotonic duodenography Includes fluoroscopy time up to 7 minutes. Count MI955 for fluoroscopy time >7 minutes.	35	35	1
GR645	Colon, single contrast Includes fluoroscopy time up to 7 minutes. Count MI955 for fluoroscopy time >7 minutes.	30	30	1
GR646	Colon, double contrast Includes fluoroscopy time up to 7 minutes. Count MI955 for fluoroscopy time >7 minutes.	45	45	1

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
GR650	Pouchogram and/or Proctogram Includes fluoroscopy time up to 7 minutes. Count MI955 for fluoroscopy time >7 minutes.	30	30	1
GR655	Intravenous cholangiogram Includes fluoroscopy time up to 7 minutes. Count MI955 for fluoroscopy time >7 minutes.	45	Not used in NL Dictionary	1
GR660	T-tube Cholangiogram Includes all delayed films Includes fluoroscopy time. Do not also count workload for MI955.	25	25	1
GR915	ERCP (Endoscopic Retrograde Cholangiopancreatography) Includes sphincterotomy if performed by Radiologist concurrently. Includes fluoroscopy time. Do not also count workload for MI955.)	50	50	1
GR665	Hypotonic G.I. tract study (e.g., Buscopan, Hyoscine or Glucagon study etc.), - additional per examination Includes fluoroscopy time up to 7 minutes. Count MI955 for fluoroscopy time >7 minutes.	10	Not used in NL Dictionary	0
GR670	Oro-gastric/Nasogastric (OG/NG) tube insertion Includes fluoroscopy time up to 7 minutes. Count MI955 for fluoroscopy time >7 minutes.	20	20	1

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
GR675	Sinogram Fistulogram Includes fluoroscopy time. Do not also count workload for MI955.	30	30	1
GR680	Small bowel biopsy Do not also count IR427, IR428, or MR410. Includes fluoroscopy time up to 7 minutes. Count MI955 for fluoroscopy time >7 minutes.	30	30	1
GR685	Lithotripsy – biliary Includes fluoroscopy time. Do not also count workload for MI955.	45	Not used in NL Dictionary	1
GR690	Colonoscopy Includes fluoroscopy time up to 7 minutes. Count MI955 for fluoroscopy time >7 minutes.	30	Not used in NL Dictionary	1
GR695	Additional projections for any Gastro-Intestinal (G-I) tract exams	5	Not used in NL Dictionary	1
Genito-Urinary (G.U.) Tract				
GR705	Kidneys, ureters, bladder (KUB)	8	8	1
GR710	Intravenous pyelography (IVP), including rapid sequence, drip infusion with or without tomography	40	40	1
GR715	Retrograde pyelogram, unilateral or bilateral An exam is considered ‘bilateral’ if both sides are imaged using the same exposure. *In NL a bilateral exam will equal an exam count of 2 in most cases. Includes fluoroscopy time up to 7 minutes. Count MI955 for fluoroscopy time >7 minutes.	30	30	1

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
GR720	Cystography, static or voiding/retrograde Includes fluoroscopy time up to 7 minutes. Count MI955 for fluoroscopy time >7 minutes. For special needs service recipients, if applicable, consider also adding workload for any of codes MI931, MI935, MI940 or MI941, and/or MI970 and/or MI945. See GR721 for pediatric	32	32	1
GR721	Cystography, static or voiding/retrograde Pediatric (NL exam)	N/A	37	1
GR725	Urodynamics cystogram Includes fluoroscopy time up to 7 minutes. Count MI955 for fluoroscopy time >7 minutes. For special needs service recipients, if applicable, consider also adding workload for any of codes MI931, MI935, MI940 or MI941, and/or MI970	60	Not used in NL Dictionary	
GR730	Ileo-loopogram (Kochogram) Includes fluoroscopy time up to 7 minutes. Count MI955 for fluoroscopy time >7 minutes.	30	30	1
GR735	Retrograde urethrogram Includes fluoroscopy time up to 7 minutes. Count MI955 for fluoroscopy time >7 minutes.	25	25	1
GR740	Antegrade pyelogram (alone) Includes fluoroscopy time up to 7 minutes. Count MI955 for fluoroscopy time >7 minutes.	30	30	1

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
GR745	Nephrostogram, unilateral Includes fluoroscopy time up to 7 minutes. Count MI955 for fluoroscopy time >7 minutes.	30	30	1
GR750	Vasogram, bilateral Includes fluoroscopy time up to 7 minutes. Count MI955 for fluoroscopy time >7 minutes.	40	40	1
GR755	Lithotripsy – kidney, unilateral For lithotripsy, bilateral: count GR755 twice Includes fluoroscopy time. Do not also count workload for MI955. If entering the operating room or similar sterile environment, also count workload for MI910	45	45	1
GR760	Hysterosalpingography Includes fluoroscopy time up to 7 minutes. Count MI955 for fluoroscopy time >7 minutes.	30	30	1
GR765	Male genitalia (E.g., penis) Includes fluoroscopy time up to 7 minutes. Count MI955 for fluoroscopy time >7 minutes.	30	Not used in NL Dictionary	1
GR910 Deleted by CIHI 2019 NL will continue to use this code	Volume radiology (E.g., sternum, SC joint, glenoid fossa) Includes use of advanced tomography technology with all manual or automated post processing. Only count workload if performed by unit-producing personnel. Do not collect additional workload for tomography (code GR925) or post processing (MI950A)	10	10	1

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
GR920A	Surgical specimen Includes biopsy specimens, breast tissue specimens following lumpectomy or mammography, and amputated limb etc. <i>Replaces MM 235</i>	10	10	1
GR925	Tomography Count workload if tomography is performed in the absence of a preliminary x-ray. Do not also count workload for GR910. For exams that do not regularly include tomography, use actual time methodology for the workload units and add to the exam time value using code MI960. Refer to General Information and Recording Instructions – Service Recipient Activities for miscellaneous exams.	Actual/ Standard Time	Not used in NL Dictionary	1
GR930	CR (computed radiology) technology (E.g., using an imaging plate/cassette) Excludes exams performed using DR (direct radiology) technology.	5	5 Capture via drop down menu	0
GR935	Radiostereometric exam E.g., assessment of joint replacement prosthesis Count as one exam only if not combined with another exam.	10	Not used in NL dictionary	1

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
IR920	Pacemaker, temporary or permanent, all inclusive Note: For pacemaker implants occurring in the Cardiac Catheterization functional centre, see codes CC920 (temporary) or codes CC335, CC340, CC345 or CC350 (permanent). Do not count IR920 in addition to cardiac catheterization pacemaker codes.	60	60	1
	May also count workload for separate simultaneous catheterization; count once for each additional arterial access.	16	TBD	0
Bone Mineral Density				
GR805	Bone density, one site	15	15	1
GR806	Bone density, two sites	25	25	1
GR807	Bone density, more than two sites	5	5	1
GR810	Bone density, whole body	25	25	1

Mammography

General Information and Recording Instructions for Mammography:

- Screening programs for mammography are set up to perform quality examinations within a minimal time frame. Service recipients:
 - Are usually self-referred.
 - Meet published criteria; and
 - Are breast-symptom free.

(Service recipients are not eligible to be screened if they have an identified clinical problem such as lump in the breast)
- Diagnostic mammograms are performed to investigate symptoms of suspected breast disease. As a result of differences in the protocols,

screening mammography requires fewer workload units than that of diagnostic mammography.

3. When service recipient education related to breast self-examinations is provided, the value should be derived using standard time. Note: Additional workload is assigned to the unique role “Breast Navigator” for complex counselling duties in the Mammography functional centre only – see MM250. (NL added: and provided by MRT UPP staff.)
4. Any activity in the schedule of unit values can be utilized by any medical imaging functional centre if the unit value is accurate and reflective of the realistic average time required to perform a specified activity. Therefore, workload listed in various medical imaging modalities can be captured in any other medical imaging functional centre, if applicable; however, these codes are only listed once, in the modality for which they are most often used.
5. Please see Items for Count for the definition of “exam” in Medical Imaging.
6. The average time for post processing reconstruction for mammography imaging is 20 workload units that are integrated into the schedule of unit values as a component activity. To capture post processing workload units beyond 20 minutes, see code MI950A. If the images are reconstructed through computer automation with no hands-on technical intervention, workload units are not captured as no unit-producing personnel (UPP) hands-on time is involved.
7. A mammography exam is considered ‘bilateral’ when both breasts are imaged individually at the same visit to the functional centre; count as 1 exam (2 exams in NL). A mammography exam is considered ‘unilateral’ when a single breast is imaged during a visit to the functional centre; count as 1 exam. If two unilateral mammogram exams are carried out, each on separate visits to the functional centre, count as 2 exams.
8. The component activities within the conceptual model for medical imaging include exam preparation activities, amongst other activities including room preparation, initial handling/set-up, cleanup, service recipient assessment (pre & post exam monitoring), consent and instructions, IV insertion, administration of radiopharmaceuticals, contrast media and/or medications etc. Please refer to the Medical Imaging Conceptual Model for a list of component activities. Note: this workload applies only to the diagnostic medical sonographer or MRT who is unit-producing personnel in the medical imaging functional centre. For exams that require IV fluid administration for hydration,

prevention of nephrotoxicity or other adverse effects of contrast or for other physiologic requirements such as full bladder, maintenance of cardiac output or fluid challenges or for the administration of other radiopharmaceuticals, additional workload units should be reported under MI980 as service recipient activity, Miscellaneous.

Note: Surgical specimen- (e.g., for breast tissue specimens following lumpectomy or mammography etc.)

See code GR920

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
MM001	Attempted mammography exam	N/A	16	1
MM002	Attempted biopsy exam	N/A	30	1
MM105	Screening Mammography, bilateral, up to 4 projections	20	20	2
MM110	Screening Mammography, unilateral, up to 2 Projections Also count workload for MM115 for each additional projection >2	10	10	1
MM115	Units for each additional projection greater than number stated in the exam definition	5	Not used in NL Dictionary	0
MM120	Breast implants with screening mammography Count with MM105 or MM110 as applicable.	5	Not used in NL Dictionary	0
MM205	Diagnostic Mammography, unilateral, up to 4 projections Also count workload for MM206 for each	16	16 via drop down menu	1
MM206	Units for each additional projection-unilateral	7	7	0
MM207	Units for presence of breast implant-unilateral; Count additional workload units	10	Not used in NL dictionary	0

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
MM210	Diagnostic Mammography, bilateral up to 4 projections. Also count workload for MM211 for each additional bilateral projection>4. MM211 not used in NL. May also count workload for MM212 for bilateral breast implants and/or MM245 for combined Tomosynthesis imaging. MM245 not used in NL.	21	21	2
MM211	Units for each additional projection-bilateral	9	Not used in NL Dictionary	0
MM212	Units for presence of breast implants-bilateral; Count additional workload units with MM210	15	Not used in NL Dictionary	0
MM215	Fine wire localization (FWL), skin markings or clip placement, unilateral Includes scout films. Also count workload for MM216 for each additional FWL site on same side.	45	45	1
MM216	Each additional fine wire localization, skin markings or clip placement, same side	24	24	0
MM220	Galactography or mammoductography, including unilateral mammography	43	43	1
MM223 New exam 2022	Contrast enhanced breast exams	17	TBD	1
MM225	Core Biopsy – core of breast, single lesion Includes pre-biopsy imaging & post-stereo biopsy for clip placement. May also count workload units with MM235 as applicable. For all other biopsies of anatomical sites, see one of: GR680, IR427, IR428, MR410.	66	66	1

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
MM230	Core Biopsy- core of breast, multiple lesions Includes pre-biopsy imaging & post-stereo biopsy for clip placement. May also count workload units with MM235 as applicable. For all other biopsies of anatomical sites, see one of: GR680, IR427, IR428, MR410	82	82	1
MM235	Surgical specimen See code GR920A Surgical specimen- (e.g., for breast tissue specimens following lumpectomy or mammography etc.) <i>(accepted in 2016)</i>	10	10	1
MM235	Clip placement post-breast biopsy Count once per biopsy site. <i>In NL included in MM225 and MM230</i> Clip placement post-breast biopsy. This code can be used for clip placement for post-stereo biopsy. Count once per biopsy site.	14	Not used in NL Dictionary	0
MM240	Breast Digital Tomosynthesis Count only if tomosynthesis is not combined with another exam.	20	Not used in NL Dictionary	1
MM245	Breast Digital Tomosynthesis Count only if tomosynthesis is combined with another exam.	20	Not used in NL Dictionary	0
MM250	Breast Navigator Role -counselling-complex. Count once for additional workload	Actual or standard time	Not used in NL Dictionary	0

Interventional Radiology

Please note: 2016 Revisions (yellow highlight) and 2019 Revisions (blue highlight) are reflected in SUV but have not been reviewed or implemented in NL. However, select IR procedures have been reviewed, approved and applied in other modalities as required by NL; the remaining un-reviewed exams are in deep grey highlight.

General Information and Recording Instructions for Interventional Radiology

1. The interventional radiology schedule of unit values is constructed to provide three separate and distinct interventional radiology exam activities sections:
 - Vascular Diagnostic,
 - Vascular Therapeutic and:
 - Non-Vascular Interventional Activities
2. Where the exam typically requires more than one technologist to complete it, the published unit value reflects the total workload units for all the technologists that are expected to be involved in performing that exam. Each component activity that is included in the exam is performed only once per exam by one of the two technologists, and not by both (E. g. injecting the contrast media is not usually performed twice for one service recipient). For this reason, the workload units are not doubled when two technologists are performing the exam
3. If the work is done by one technologist and one nurse, the unit values listed should be reported separately, according to the workload measurement system used respectively by the medical radiation technologist and the nurse. Only the portion of time that is applicable to the technologist should be reported under the medical imaging workload measurement system. As a reminder, you will see the notation “Count only if workload is performed by unit-producing personnel” included in certain exam definitions where MI nurses might also perform some of the hands-on work. Organizations that use a “nurse/technologist” staffing model should audit the proportion of the component activities performed by the technologist for specific exams, and count a percentage of the unit value, accordingly, reported under the applicable Medical Imaging functional centre. The medical radiation technologist should also report the exam count that is specified in.
4. Interventional Radiology workload might occasionally be elsewhere represented in the schedule of unit values for Medical Imaging. For example, if the Interventional Radiology functional centre performs exams such as **Arthrography, upper extremities, unilateral, this code (GR905 – GR909)** can be referenced in the General Radiography section as it is commonly also performed in that functional centre. The Medical Imaging schedule of unit values is categorized by modalities to increase the ease of referencing the codes by **users**, therefore these codes, or any codes in other modalities, are available for use by all modalities provided the unit value/exam count is accurate and representative, and the workload is recorded in the functional centre where the exam was performed.
5. **The average time for post processing reconstruction is 20 workload units that are integrated into the schedule of unit values as a component activity for Interventional Radiology. To capture workload units greater than the 20 minutes, see code MI950 for additional post processing workload. If the images are reconstructed through computer**

automation with no hands-on technical intervention, workload units are not captured as no unit-producing personnel (UPP) hands-on time is involved.

Formerly #5 When multiple activities are performed together, the unit values should be aggregated. See example below.

Aggregated activities example: Service Recipient with right renal artery thrombosis attends IR suite for right saphenous vein mechanical thrombolysis and angioplasties of left iliac artery and a minor left iliac branch artery. Note: diagnostic angiography had occurred at a previous encounter

6. Do not count workload for post-processing for interventional radiology activities unless post-processing time exceeds 30 minutes (see code IR600).

7. Fluoroscopy is integral to Interventional Radiography exams; therefore, the average workload units for fluoroscopy are already accounted for in the published unit values listed below. Do not also count MI955 for fluoroscopy performed as part of an interventional radiography exam listed below.

8. The component activities within the conceptual model for medical imaging include exam preparation activities, amongst other activities including room preparation, initial handling/set-up, cleanup, service recipient assessment (pre & post exam monitoring), consent and instructions, IV insertion, administration of radiopharmaceuticals, contrast media and/or medications etc. Where applicable, additional workload for component activities is incorporated including scrub/circulation tasks, arterial/venous catheter insertion/removal, all imaging and post processing, use of closure devices for homeostasis etc. Please refer to the Medical Imaging Conceptual Model for a list of component activities. Note: this workload applies only to medical radiation technologist unit-producing personnel in the medical imaging functional centre. ~~To count additional workload for the administration of IV fluids, see code MI980.~~ For exams that require IV fluid administration for hydration, prevention of nephrotoxicity or other adverse effects of contrast or for other physiologic requirements such as full bladder, maintenance of cardiac output or fluid challenges or for the administration of other radiopharmaceuticals, additional workload units should be reported under MI980 as service recipient activity, Miscellaneous.

Code	Exam Name/Description	CIHI Unit Values	Exam Count
IR305	Angioplasty to main branch left iliac artery	100	1
IR306	Angioplasty to minor branch of left iliac artery (subsequent lesion).	20	0
IR341	Thrombolysis- mechanical- non-neurological	78	1
TOTAL		198 Workload	2 Exam Count

9. Do not count workload for post-processing for interventional radiology activities unless post-processing time exceeds 30 minutes (see code IR600).
10. The component activities within the conceptual model for medical imaging include exam preparation activities, amongst other activities including room preparation, initial handling/set-up, cleanup, service recipient assessment (pre & post exam monitoring), consent and instructions, IV insertion, administration of radiopharmaceuticals, contrast media and/or medications etc. Where applicable, additional workload for component activities is incorporated including scrub/circulation tasks, arterial/venous catheter insertion/removal, all imaging and post processing (30 minutes or less), use of closure devices for homeostasis etc. Please refer to the Medical Imaging Conceptual Model for a list of component activities. Note: this workload applies only to medical radiation technologist unit producing personnel in the medical imaging functional centre. To count additional workload for the administration of IV fluids, see code MI980.
11. Any activity in the schedule of unit values can be utilized by any medical imaging functional centre if the unit value is accurate and reflective of the realistic average time required to perform a specified activity. Therefore, workload listed in various medical imaging modalities can be captured in any other medical imaging functional centre, if applicable; however these codes are only listed once, in the modality for which they are most often used **or appear first in the schedule of unit values.**

Formerly # 11 Angiography workload and exam count are grouped into two categories: diagnostic or therapeutic. Workload for a diagnostic angiography should not be counted during a therapeutic interventional procedure such as angioplasty, stent placement; thrombolysis or other therapeutic procedure which is planned or expected. This is because the vascular approach is necessary to complete the therapeutic interventional radiology procedure. If only a diagnostic angiogram (IR205) was scheduled, but circumstances of the case required an unplanned therapeutic procedure, then the workload for these two (or other multiple combinations) procedures are aggregated. Example: a planned diagnostic angiogram IR205 progresses to unplanned embolization of a neurological vessel (IR310) = aggregated workload for IR205 + IR310 = 28 workload units, 1 exam + 120 workload units, 1 exam = 148 workload units, 2 exams.

12. Some activities in the interventional radiology schedule can also be found in other sections of the medical imaging schedule of unit values. An example is cardiac pacemaker, which is also found in the cardiac catheterization section of the schedule of unit values; codes CC335, CC340, CC345, CC350 (permanent), and CC920 (temporary).
13. Any activity in the schedule of unit values can be utilized by any medical imaging functional centre if the unit value is accurate and reflective of the realistic average time required to perform a specified activity. Therefore, workload listed in various medical imaging modalities can be captured in any other medical imaging functional centre, if

applicable; however these codes are only listed once, in the modality for which it is most often used.

14. Please see Items for Count for the definition of “exam” in Medical Imaging WMS.

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
<p>Vascular Diagnostic - Arterial</p> <p>Note: The component activities within the conceptual model for medical imaging include routine exam preparation activities, including room preparation, initial handling/set-up, cleanup, service recipient assessment (pre & post exam monitoring), consent and instructions, IV insertion, administration of radiopharmaceuticals, contrast media and medications, scrub/circulation tasks, arterial/venous catheter insertion/removal, all imaging and post processing (30 minutes or less), use of closure devices for homeostasis etc. Please refer to the Medical Imaging Conceptual Model for a list of component activities.</p> <p>All Interventional Radiology exams include fluoroscopy time. Do not also count workload for MI955.</p> <p>May also see MI950 for additional workload associated with post processing reconstruction in excess of first 20 minutes of hands-on time.</p>				
IR205	<p>Diagnostic angiogram only Count once per exam. Includes carotid arteries.</p> <p>Do not count when an angioplasty, stent or thrombolysis or other therapeutic procedure is planned or expected. If IR205 escalates to an unplanned therapeutic procedure, then the workload for the two exams (and/or other multiple combinations of exams) are aggregated. May also count workload for separate simultaneous catheterization; count once for each additional arterial access. Does not include pacemaker. See code IR217 for Lymphangiogram.</p>	88	TBD	1
IR206	<p>Diagnostic angiogram only subsequent vessels Count once per subsequent vessel in addition to the workload and exam count for code IR205</p>	12	TBD	0

IR210	Venography, unilateral (upper/lower extremity) Added to NL dictionary – RF modality - Linogram	40	40	1
IR211	Venography, bilateral (upper/lower extremity)	55	55	1
Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
IR215	Venography, selective- Other Includes superior vena cava, inferior vena cava, orbital, thoracic etc. Added to NL dictionary – CC modality IR215A- Venogram	53 N/A	TBD 15 for CC add-on	1
IR217 New exam	Lymphangiogram	60	TBD	1
Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
IR220	Guided biopsy, trans jugular liver - Focal Count once per exam. Excludes all other biopsies of anatomical sites-see one of: GR680, IR427, IR428, MR410	146	TBD	1
IR221	Guided biopsy, trans jugular liver- Non-focal Count once per exam. Excludes all other biopsies of anatomical sites-see one of: GR680, IR427, IR428, MR410	120	TBD	1
IR225	A-V fistulogram, unilateral (E.g., imaging of A-V fistula for hemodialysis). If bilateral exam is performed, count as two exams. Excludes thrombolysis. See codes IR341 or IR346 for thrombolysis of A-V fistula. Excludes stent insertion: see code IR321.	45	TBD	1
IR230	Corpus Cavernosogram Count once per exam.	105	TBD	1

Vascular Therapeutic

Note: The component activities within the conceptual model for medical imaging include routine exam preparation activities, including room preparation, initial handling/set-up, cleanup, service recipient assessment (pre & post exam monitoring), consent and instructions, IV insertion, administration of radiopharmaceuticals, contrast media and medications, scrub/circulation tasks, arterial/venous catheter insertion/removal, all imaging and post processing, use of closure devices for homeostasis etc. Please refer to the Medical Imaging Conceptual Model for a list of component activities.

All Interventional Radiology exams include fluoroscopy time. Do not also count workload for MI955.

May also see MI950 for additional workload associated with post processing reconstruction in excess of first 20 minutes of hands-on time.

Note: Do not also count IR205, diagnostic angiogram if any of the exams listed below were planned and/or expected.

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
IR305	Angioplasty Includes all inflations done in order to dilate a single lesion and all associated imaging used in pre/post dilatations.	100	TBD	1
	May also count workload for separate simultaneous or separate catheterization; count once for each additional arterial access. Count once per lesion.	16		0
IR306	Angioplasty, subsequent lesions. Includes all inflations done to dilate a single lesion and all associated imaging used in pre and post dilatations. Count once for each subsequent lesion in addition to workload and exam count of code IR305.	20	TBD	0

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
IR308	Subintimal angioplasty (E.g., for lower extremity revascularization) Includes Crosser [®] systems	180	TBD	1
IR310	Embolization of a neurological vessel – non-coil (E.g., cranial, spinal vessels) Count once for each embolization performed within a vessel (including its bifurcations). May also count workload for separate simultaneous catheterization; count once for each additional arterial access	140	TBD	1
		16		0
IR311	Embolization of a neurological vessel – coil, (E.g., cranial, spinal vessels) Count once for each embolization performed within a vessel (including its bifurcations). May also count workload for separate simultaneous catheterization; count once for each additional arterial access	200	TBD	1
		16		0
IR312	Embolization of a non-neurological vessel – coil or non-coil Count once per vessel (including its bifurcations). May also count workload for separate simultaneous catheterization; count once for each additional arterial access	150	TBD	1
		16		0
IR315	Therasphere infusion therapy (E.g., neoadjuvant therapy for neoplasm)	130	TBD	1

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
IR320	Stent Insertion – neurological Count once per lesion.	150	TBD	1
	May also count workload for separate simultaneous catheterization; count once for each additional arterial access.	16		0
IR321	Stent Insertion - non-neurological Count once per lesion.	110	TBD	1
	May also count workload for separate simultaneous catheterization; count once for each additional arterial access.	16		0
IR330	Endografts	240	TBD	1
	May also count workload for separate simultaneous catheterization; count once for each additional arterial access	16		0
IR920	Pacemaker, temporary or permanent, all inclusive Note: For pacemaker implants occurring in the Cardiac Catheterization functional centre, see codes CC920 (temporary) or codes CC335, CC340, CC345 or CC350 (permanent). Do not count IR920 in addition to cardiac catheterization pacemaker codes.	60	TBD	1
	May also count workload for separate simultaneous catheterization; count once for each additional arterial access.	16		0
IR340	Thrombolysis- mechanical- neurological (E.g., Clot maceration and aspiration)	165	90	1
	May also count workload for separate simultaneous catheterization; count once for each additional arterial access	16	?	0

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
IR341	Thrombolysis- mechanical- non-neurological (E.g., Clot maceration and aspiration)	78	TBD	1
	May also count workload for separate simultaneous catheterization; count once for each additional arterial access	16		0
IR345	Thrombolysis- pharmacological- neurological (E.g., Injection of clot-dissolving pharmaceutical.)	100	TBD	1
	May also count workload for separate simultaneous catheterization; count once for each additional arterial access	16		0
IR346	Thrombolysis- pharmacological- non-neurological (E.g., Injection of clot-dissolving pharmaceutical.)	70	TBD	1
	May also count workload for separate simultaneous catheterization; count once for each additional arterial access	16		0
IR350	Thrombolytic recheck.	60	TBD	1
IR355	Retrieval intravascular foreign body (E.g., IV catheter fragment retrieval)	40	TBD	1
IR360	TIPS (trans jugular intrahepatic portal systemic) stent insertion	240	TBD	1
IR365	Venous sampling	73	TBD	1
IR370	Placement of venous catheter – temporary. May include hemodialysis line or another temporary catheter. Count only if workload is performed by unit-producing personnel.	42	TBD	1
IR371	Placement of venous catheter – permanent or tunnelled. May include hemodialysis line or another venous catheter. Count only if workload is performed by unit-producing personnel.	75	75	1

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
IR375	Placement - PICC line Count only if workload is performed by unit-producing personnel.	45	45	1
IR380	Placement - Port-a-cath (insertion) Count only if workload is performed by unit-producing personnel.	70	TBD	1
IR385	Removal of venous catheter (E.g., Hickman, Port-a-cath, PICC, hemodialysis line etc.) Excludes peripheral temporary intravenous lines, other than PICC catheters. Count only if workload is performed by unit-producing personnel	25	TBD	1
IR386	Exchange of venous catheter (E.g., Hickman, Port-a-cath, PICC, hemodialysis line etc.) Excludes peripheral temporary intravenous lines, other than PICC catheters. Count only if workload is performed by unit-producing personnel.	30	TBD	1
IR387	Manipulation of central venous catheter line Includes venous catheter stripping (E.g., Hickman, Port-a-cath, PICC, hemodialysis line etc.). Do not also count IR390. Excludes peripheral temporary intravenous lines, other than PICC catheters. Count only if workload is performed by unit-producing personnel.	45	TBD	1
IR390	A-V graft declotting	85	TBD	1
IR395	IVC filter insertion (inferior vena cavagram)	65	TBD	1
IR396	Removal of temporary inferior vena cava filter	65	TBD	1

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
IR399	Wada Exam	180	TBD	1
	May also count workload for separate simultaneous catheterization; count once for each additional arterial access	16		0

Non-Vascular Interventional

Note: The component activities within the conceptual model for medical imaging include routine exam preparation activities, including room preparation, initial handling/set-up, cleanup, service recipient assessment (pre & post exam monitoring), consent and instructions, IV insertion, administration of radiopharmaceuticals, contrast media and medications, scrub/circulation tasks, non-vascular catheter insertion/removal, **imaging for guidance and post processing (30 minutes or less)**, etc. Please refer to the Medical Imaging Conceptual Model for a list of component activities.

All Interventional Radiology exams include fluoroscopy time. Do not also count

IR405	Shuntogram (E.g., imaging a hydrocephalus-related implanted shunt)	30	TBD	1
IR410	Thoracentesis– diagnostic	45	45	1
IR411	Thoracentesis – therapeutic	55	55	1
IR415	Cholangiogram, percutaneous transhepatic Count once per exam	120	TBD	1
IR420	Paracentesis, diagnostic	50	50	1
IR421	Paracentesis, therapeutic	80	80	1
IR425	Guided biopsy or aspiration of mass or organ. Application of this code will be further reviewed with the IR dictionary standard when available	N/A	55	1
IR426	Guided biopsy or aspiration of bone or spine Application of this code will be further reviewed with the IR dictionary standard when available	N/A	55	1

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
IR427	<p>Guided biopsy or aspiration of cyst, mass, organ, or bone – one site (E.g., liver biopsy [non-trans jugular approach], thyroid, muscle, or spine etc.)</p> <p>Excludes GR680 (small bowel biopsy), paracentesis (IR420, IR421) and thoracentesis (IR410, IR411), breast biopsy (MM225 and/or MM230). Also excludes guided biopsy, trans jugular liver (see codes IR220 (focal) or IR221 (non-focal) and biopsy with MRI technology (MR410).</p>	61	61	1
IR428	<p>Guided biopsy or aspiration of cyst, mass, organ, or bone – each additional site > 1. (E.g., liver biopsy [non-trans jugular approach], thyroid, muscle, or spine etc.)</p> <p>Count once for each additional site in addition to workload and exam count of code IR427.</p> <p>Excludes GR680 (small bowel biopsy), paracentesis (IR420, IR421) and thoracentesis (IR410, IR411), breast biopsy (MM225 and/or MM230). Also excludes guided biopsy, trans jugular liver (see codes IR220 (focal) or IR221 (non-focal) and biopsy with MRI technology (MR410).</p>	12	TBD	0
IR430	Image-guided chest tube insertion	60	60	1
IR435	Lumbar puncture myelogram	45	45	1
IR440	Cisternal puncture myelogram	55	TBD	1
IR442	Salivary gland- injections (E.g., Botox injections for treatment of excessive drooling)	120 workload units	TBD	1 exam

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
IR445	<p>Injection, facet/S.I. joint</p> <p>Do not collect workload/exam counts for codes CT575 and IR445 together.</p> <p>Count only if workload is performed by unit-producing personnel.</p>	48	TBD	1
IR446	<p>Injection, additional facet/S.I. joint</p> <p>Do not collect workload/exam counts for codes CT575 and IR446 together.</p> <p>Count only if workload is performed by unit-producing personnel.</p>	20	TBD	1
IR450	<p>Joint/spine/intrathecal injection/ aspiration Includes administration of chemotherapy and other therapeutic agents (E.g., epidural block) May count additional 30 workload units and zero exams for each additional injection/aspiration (E.g., multiple spine levels). For special needs service recipients (E.g., pediatric etc.), if applicable, consider also adding workload for any of codes MI931, MI935, MI940 or MI941, and/or MI970 and/or MI945. Do not collect workload/exam counts for codes CT575 and IR 450 or IR455 together. Count only if workload is performed by unit-producing personnel. Added to NL dictionary – injection any joint</p>	30	30	1
IR455	<p>Extensive joint injections - multiple levels, bilateral</p> <p>Do not collect workload/exam counts for codes CT575 and IR 450 or IR455 together. For special needs service recipients (E.g., pediatric etc.), if applicable, consider also adding workload for any of codes MI931, MI935, MI940 or MI941, and/or MI970 and/or MI945.</p>	180	TBD	1

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
IR460	Nerve block, injection Count once for each injection. Count only if workload is performed by unit-producing personnel.	36	TBD	1
IR465	Basket extraction of stone, G.U. tract Count once per exam.	132	90	1
IR470	Stent insertion, urinary tract- unilateral Count once per exam	142	100	1
IR471	Stent insertion, urinary tract- bilateral	182	140	1
IR475	Nephrostomy, percutaneous - unilateral	122	80	1
IR476	Nephrostomy, percutaneous – bilateral	152	110	1
IR480	Nephrostomy, tube exchange - unilateral	97	55	1
IR481	Nephrostomy, tube exchange - bilateral	123	81	1
IR485	Drainage tube removal, G.U. tract Count once for each tube removed	35	TBD	1
IR487	Percutaneous suprapubic catheter insertion	60	TBD	1
IR488	Percutaneous suprapubic catheter exchange	35	TBD	1
IR490	Dilatation G.U. tract	107	TBD	1
IR491	Dilatation, G.I. tract	110	110	1
IR495	Stent insertion, G.I. tract	110	110	1
IR500	Stent insertion, Respiratory tract E.g., Bronchial (unilateral and bilateral), or tracheal etc.	25	TBD	1
IR503	Dilation: respiratory tract E.g., Bronchial (unilateral and bilateral), or trachea etc.	54	TBD	1
IR505	Basket extraction of stone, G.I. tract	140	140	1
IR510	Drainage, biliary, one branch	120	TBD	1
IR511	Drainage biliary, two branches	140	TBD	1

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
IR915	ERCP	50	TBD	1
IR515	Gastrostomy, percutaneous	60	TBD	1
IR520	Gastrojejunostomy	80	TBD	1
IR525	Catheter exchange, biliary	50	TBD	1
IR526	Catheter exchange, gastrostomy	35	TBD	1
IR530	Drainage tube removal, G.I. tract	30	TBD	1
IR535	Catheter exchange, abscess	45	TBD	1
IR540	Guidance for catheter placement including for fluid/abscess drainage, single catheter Do not count for therapeutic paracentesis (see IR421) or therapeutic thoracentesis (see IR411).	90	TBD	1
IR545	Guidance for percutaneous catheter placement including for fluid or abscess drainage, multiple catheters Do not count for therapeutic paracentesis (see IR421) or therapeutic thoracentesis (see IR411).	130	TBD	1
IR548	Guidance for insertion, manipulation or exchange of peritoneal catheter	60	TBD	1
IR550	Kyphoplasty – One Level	110	110	1
IR551	Kyphoplasty – two or more levels	150	TBD	1
IR555	Vertebroplasty	100	TBD	1
IR560A	Cryosurgery/Radiofrequency ablation/Thermoablation Count once for first lesion. <i>Added to NL CC dictionary as IR560A – Isolation Pulmonary Vein and Cryo/Radio Frequency Ablation</i>	115	145	1
IR560	Cryosurgery/Radiofrequency ablation/Thermoablation Count once for first lesion. <i>Added to NL CC dictionary – Ablation Cryo/Radio Frequency</i>	115	30	0

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
IR565	Cryosurgery/Radiofrequency ablation/ Thermoablation Count once for each additional lesion >1.	62	TBD	0
IR 570	Percutaneous Caecostomy	60	TBD	1
IR600	Post processing reconstruction in excess of first 30 minutes of hands-on time Count in increments of 10 minutes. Note: IR600 is additional workload to be counted for interventional radiology activities only.	10	TBD	0

Computed Tomography

General Information and Recording Instructions for Computed Tomography:

- Exams are counted separately if imaging of non-contiguous anatomical parts/regions (non-clustered body structures) is performed (e.g., brain and ankle). Imaging of non-contiguous anatomical parts/regions generally requires service recipient repositioning. Contiguous regions (clustered body structures) anatomical parts/regions imaging (e.g., chest/abdomen), generally does not require service recipient repositioning: therefore, one exam is counted as defined in the applicable exam code section. Count separate workload and exams as applicable, if imaging of non-contiguous anatomical parts/regions (non-clustered body structures) is performed (e.g., brain and ankle). When repositioning is required, an additional exam is counted.
- The average time for post processing reconstruction is 20 workload units that are integrated into the schedule of unit values as a component activity for the CT Scanning modality. To capture workload units greater than 20 minutes, see code MI950A for additional post processing workload. If the images are reconstructed through computer automation with no hands-on technical intervention, workload units are not captured as no unit-producing personnel (UPP) hands-on time is involved.
- When a request is received to perform an enhanced and a non-enhanced image, use the combined code with 1 exam count. However, if a request is received to perform a non-enhanced image, and as a result of the evaluation of the non-enhanced image, an enhanced image is requested, count both the non-enhanced and enhanced separately to total 2 exam counts.

4. The workload unit for enhanced exams includes accessing the service recipient's vein or injecting contrast or medication. The component activities within the conceptual model for medical imaging include exam preparation activities, amongst other activities including initial handling/set-up, service recipient preparation/instructions, assessment (pre & post exam monitoring), administration of radiopharmaceuticals, contrast media and medications, etc. Please refer to the Medical Imaging Conceptual Model for a list of component activities. ~~See code MI980 for additional workload associated with provision of IV fluids.~~ For exams that require IV fluid administration for hydration, prevention of nephrotoxicity or other adverse effects of contrast or for other physiologic requirements such as full bladder, maintenance of cardiac output or fluid challenges or for the administration of other radiopharmaceuticals, additional workload units should be reported under MI980 as service recipient activity, Miscellaneous.
5. Any activity in the schedule of unit values can be utilized by any medical imaging functional centre if the unit value is accurate and reflective of the realistic average time required to perform a specified activity. Therefore, workload listed in various medical imaging modalities can be captured in any other medical imaging functional centre, if applicable; however, these codes are only listed once, in the modality for which that it is most often used. (E.g., MI950A for post-processing).
6. The unit values listed here are averages of regular and routine medical imaging activities. When infrequent activities occur, use actual or standard time methodology to capture workload.
7. Please see Items for Count for the definition of "exam" in Medical Imaging WMS.

Head

Note: One exam includes any combination of anatomical parts listed in each CT activity, (E.g., Usually, the service recipient is not repositioned). Count separate workload and exams as applicable, if imaging of non-contiguous anatomical parts/regions (non-clustered body structures) is performed (e.g., brain and ankle). When repositioning is required, an additional exam is counted.

CT Post processing reconstruction – additional workload – see code MI950A

Guidance for catheter placement/fluid drainage, single catheter

See code IR540

Do not count for therapeutic paracentesis (see IR421), therapeutic thoracentesis (see IR411), suprapubic catheter insertion (IR487) or suprapubic catheter exchange (IR488).

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
CT001	Attempted CT Head (plus CT attempted in dictionary with no body part) and Head Scout	N/A	15	1
CT002	Attempted CT Body and Body Scout	N/A	17	1
CT003	Attempted CT Extremity and Extremity Scout	N/A	18	1
CT004	Attempted CT Biopsy	N/A	59	1
CT105	<p>Head, non-enhanced – includes:</p> <ul style="list-style-type: none"> a) Brain b) Orbits c) Sella turcica d) IAC and/or posterior fossa e) Facial bones f) Sinuses g) Nasopharynx h) Optic foramina <p>Count separate workload and exams if, and as a result of the evaluation of the non-enhanced image, an enhanced image is requested. (NL defined)</p>	15	15	1
CT106	<p>Head, enhanced – includes:</p> <ul style="list-style-type: none"> a) Brain b) Orbits c) Sella turcica d) IAC and/or posterior fossa e) Facial bones f) Sinuses g) Nasopharynx h) Optic foramina <p>(NL defined)</p>	22	22	1
CT107	<p>Head, combined non-enhanced and enhanced – includes:</p> <ul style="list-style-type: none"> a) Brain b) Orbits c) Sella turcica d) IAC and/or posterior fossa e) Facial bones f) Sinuses g) Nasopharynx h) Optic foramina <p>(NL defined)</p>	29	29	1

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
CT107A <i>Next release</i>	Head, combined non-enhanced and enhanced with perfusion (includes delay for perfusion prior to enhanced image)	N/A	45	1
CT110	Head, stereotactic non-enhanced (e.g., 3D wand) Count separate workload and exams if, and as a result of the evaluation of the non-enhanced image, an enhanced image is requested. Do not also count workload for CT530A.	22	Not used in NL Dictionary	1
CT111	Head, stereotactic enhanced (e.g., 3D wand) Do not also count workload for CT530. Do not also count workload for CT530A.	26	Not used in NL Dictionary	1
CT112	Head, stereotactic combined, non-enhanced and enhanced (e.g., 3D wand) Do not also count workload for CT530A.	35	Not used in NL Dictionary	1
CT120	TMJ/implant study, non-enhanced Count separate workload and exams if, and as a result of the evaluation of the non-enhanced image, an enhanced image is requested.	15	15	1
CT121	TMJ/implant study, enhanced	21	21	1
CT122	TMJ/implant study, combined non-enhanced and enhanced	30	30	1
CT130	Angio, Head, enhanced	37	37	1
CT131	CT Brain, enhanced	N/A	49	1

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
Neck and Spine				
CT205	Soft Tissue Neck, non-enhanced Count separate workload and exams if, and as a result of the evaluation of the non-enhanced image, an enhanced image is requested	15	15	1
CT206	Soft Tissue Neck, enhanced	22	22	1
CT207	Soft Tissue Neck, combined non-enhanced and enhanced	30	30	1
CT210	Angiography, Soft Tissue Neck, enhanced Includes imaging of vasculature.	36	36	1
CT215	Angio, Spine, enhanced	37	Not used in NL Dictionary	1
CT220	Spine, non-enhanced – includes: a) Cervical b) Thoracic c) Lumbar d) Sacrum and/or coccyx e) cervical, thoracic and lumbar may also contain subarachnoid contrast. Count separate workload and exams if, and as a result of the evaluation of the non-enhanced image, an enhanced image is requested One exam and number of workload units do not vary regardless of combination of listed anatomical parts imaged. Note: The unit values listed here are averages of regular and routine medical imaging activities. When infrequent activities occur, use actual or standard time methods to estimate workload	18	18	1

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
CT221	<p>Spine, enhanced with IV contrast - includes cervical, thoracic, lumbar, sacrum and/or coccyx</p> <ul style="list-style-type: none"> a) cervical, b) thoracic, c) lumbar, d) sacrum and/or coccyx. <p>One exam and number of workload units do not vary regardless of combination of listed anatomical parts imaged. Note: The unit values listed here are averages of regular and routine medical imaging activities. When infrequent activities occur, use actual or standard time methodology to capture workload.</p>	25	25	1
CT222	<p>Spine, combined non-enhanced and enhanced - includes cervical, thoracic, lumbar, sacrum and/or coccyx</p> <ul style="list-style-type: none"> a) Cervical b) Thoracic c) Lumbar d) Sacrum and/or coccyx <p>One exam and number of workload units do not vary regardless of combination of listed anatomical parts imaged. Note: The unit values listed here are averages of regular and routine medical imaging activities. When infrequent activities occur, use actual or standard time methodology to capture workload.</p>	33	33	1
CT222A <i>Next release</i>	<p>Spine – extension/flexion, combined non-enhanced and enhanced with perfusion (includes delay for perfusion prior to enhanced image)</p>	N/A	45	1
Chest, Abdomen and Pelvis				
CT305	Sternoclavicular joints	17	Not used in NL Dictionary	1

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
CT310	Cardiac, non-enhanced (e.g., calcium scoring) Count separate workload and exams if, and as a result of the evaluation of the non-enhanced image, an enhanced image is requested	21	30	1
CT311	Cardiac, enhanced	40	40	1
CT312	Cardiac, combined non-enhanced and enhanced	60	60	1
CT320	Thorax (chest), non-enhanced Includes lung screening exam. Count separate workload and exams if, and as a result of the evaluation of the non-enhanced image, an enhanced image is requested	18	18	1
CT321	Thorax (chest), enhanced	26	26	1
CT322	Thorax (chest), combined non-enhanced and enhanced	32	32	1
CT322A <i>Next release</i>	Thorax (chest), combined non-enhanced and enhanced with perfusion (includes delay for perfusion prior to enhanced image)	N/A	45	1
CT330	Chest and abdomen, non-enhanced Count separate workload and exams if, and as a result of the evaluation of the non-enhanced image, an enhanced image is requested	20	20	1
CT331	Chest and abdomen, enhanced	30	30	1
CT332	Chest and abdomen, combined non-enhanced and enhanced	35	35	1
CT334	Angio, chest, abdomen and pelvis, non-enhanced Added in 2016; deleted 2019	32	Never added to dictionary	1
CT336	Angio, chest, abdomen and pelvis, enhanced <i>Replaces NL code CT 366</i>	37	37	1

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
CT338	Angio, chest, abdomen and pelvis, combined non-enhanced and enhanced.	42	42	1
CT340	Angio, Chest, enhanced (E.g., for pulmonary embolus, aortic dissection)	31	31	1
CT345	CT Scout Only (E.g., for purposes of service recipient positioning or detection of contrast) Use this code only when a scout is performed, and it does not progress to another exam.	8	See CT001/002/003 for NL value	1
CT350	Abdomen, non-enhanced Count separate workload and exams if, and as a result of the evaluation of the non-enhanced image, an enhanced image is requested	17	17	1
CT351	Abdomen, enhanced	25	25	1
CT352	Abdomen, combined non-enhanced and enhanced	31	31	1
CT355	Angio, Abdomen, enhanced (No runoff)	30	30	1
CT360	CT Enterography (small intestine), single phase, non-enhanced and enhanced, combined. Includes administration of medication (e.g., Buscopan) if performed by Unit Producing Personnel	33	33	1
CT361	CT Enterography, dual phase, non-enhanced and enhanced, combined Includes administration of medication (e.g., Buscopan) if performed by Unit Producing Personnel	38	38	1
CT362	CT Colonography – virtual colonoscopy (large intestine) code reused – see below	TBD	Not used in NL Dictionary	1

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
CT362	CT Enterography, triphasic or greater, including portal venous scans, non-enhanced and enhanced, combined Includes administration of medication (e.g., Buscopan) if performed by Unit Producing Personnel	45	45	1
CT365	Angio, abdomen and pelvis, enhanced	34	34	1
CT366	Angio, chest, abdomen and pelvis enhanced See CT336	N/A 2016 -added to CIHI SUV	41	1
CT370	Angio with Runoff, enhanced (Includes abdomen and pelvis and legs)	45	45	1
CT375	Angio, pelvis, enhanced	31	31	1
CT380	Pelvis, non-enhanced Count separate workload and exams if, and as a result of the evaluation of the non-enhanced image, an enhanced image is requested	17	17	1
CT381	Pelvis, enhanced	25	25	1
CT382	Pelvis, combined non-enhanced and enhanced	31	31	1
CT385	CT Cystogram	25	25	1
CT390	Abdomen and pelvis, non-enhanced Count separate workload and exams if, and as a result of the evaluation of the non-enhanced image, an enhanced image is requested	19	19	1
CT391	Abdomen and pelvis, enhanced	26	26	1
CT392	Abdomen and pelvis, combined non-enhanced and enhanced	33	33	1

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
CT395	Chest, abdomen and pelvis, non-enhanced Count separate workload and exams if, and as a result of the evaluation of the non-enhanced image, an enhanced image	23	23	1
CT396	Chest, abdomen and pelvis, enhanced (May include neck in NL)	35	35	1
CT397	Chest, abdomen and pelvis, combined non-enhanced and enhanced	45	39	1
Extremities				
CT405	Angio, extremity, enhanced	45	45	1
CT410	Extremity, unilateral or bilateral if done simultaneously, non-enhanced Count separate workload and exams if, and as a result of the evaluation of the non-enhanced image, an enhanced image is requested. Count unilateral exam twice if the service recipient was repositioned for the CT scan of the opposite extremity.	18	18	1
CT411	Extremity, unilateral or bilateral if done simultaneously, enhanced Count unilateral exam twice if the service recipient was repositioned for the CT scan of the opposite extremity.	25	25	1
CT412	Extremity, unilateral or bilateral if done simultaneously, combined non-enhanced and enhanced Count unilateral exam twice if the service recipient was repositioned for the CT scan of the opposite extremity.	32	32	1
CT415	Extremity, dynamic non-enhanced	N/A	25	1

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
Miscellaneous				
CT505	CT Planning for radiation oncology Do not also count CT530A.	25	Not used in NL Dictionary	1
CT510	CT Post processing reconstruction Per 10-minute periods. This activity may be collected when using existing data to create retrospective views of another anatomical part, when an additional scan is not necessary.	10	Not used in NL Dictionary	0
CT515	CT Scanned Plane - additional projections - must involve repositioning of service recipient	15	Not used in NL Dictionary	0
CT520	CT Delayed Scanning (E.g., IV contrast administered and then service recipient leaves the examination room, waits and later returns to the suite for completion of CT scan imaging. This does not include waiting time).	12	12	0
CT525	Guided biopsy/aspiration of mass or organ. See code IR427	Deprecated 2013	59	1
CT530	Guided biopsy of bone or spine See code IR427	Deprecated 2013		1
CT530A	CT for pre-procedural localization, non-enhanced. Includes stereotactic (reference markers) and baseline pre-op imaging Do not also count workload for CT505, CT110, CT111 or CT112.	15	Not used in NL dictionary	1
CT531	CT-guided percutaneous microcoil placement for intra operative procedure	N/A	60	1

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
CT535	Guidance for catheter placement/fluid drainage, single catheter. Code deprecated in CIHI but still in use in NL. See code IR540 for CIHI equivalent. Do not count for therapeutic paracentesis (see IR421) or therapeutic thoracentesis (see IR411).	deprecated	56	1
CT536	Guidance for catheter placement/fluid drainage, multiple catheters. Code deprecated in CIHI but still in use in NL. See code IR540 for CIHI equivalent. Do not count for therapeutic paracentesis (see IR421) or therapeutic thoracentesis (see IR411).	deprecated	71	1
CT540	Scanogram	10	10	
CT545	CT for Virtual Colonoscopy, supine <i>or</i> prone	25	42	
CT550	CT for Virtual Colonoscopy, supine <i>and</i> prone <i>Deprecated 2016 -NL will keep code</i>	56	56	
CT560	CT Guided Cryoablation/Thermoablation Count once per lesion	120	120	
CT561	CT Guided Cryoablation/Thermoablation Count once for each additional lesion	62	Not used in NL Dictionary	
	IV hydration for pre and/or post imaging- See MI980 to count incremental workload unit values.		Not used in NL Dictionary Collect via	
CT575	CT for guidance for injection of pharmacotherapy (E.g., in joints) Includes the preliminary aspiration. Do not collect codes CT575 and/or IR450 and/or IR455 together.	23	Not used in NL Dictionary	0
CT580	CT- Trauma series, Rapid (E.g., CT head, followed by total body angiogram (i.e. brain, heart, aorta depending on the main area of trauma) including without/or with contrast.	15	Not used in NL dictionary	1

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
IR340	Thrombolysis- mechanical- neurological (E.g. Clot maceration and aspiration) May also count workload for separate simultaneous catheterization; count once for each additional arterial access	165	90	1
<i>Next release</i>		16	16	0
IR427	Guided biopsy or aspiration of cyst, mass, organ, or bone – one site (E.g., liver biopsy [non-trans jugular approach], thyroid, muscle, or spine etc.) Excludes GR680 (small bowel biopsy), paracentesis (IR420, IR421) and thoracentesis (IR410, IR411), breast biopsy (MM225 and/or MM230). Also excludes guided biopsy, trans jugular liver (see codes IR220 (focal) or IR221 (non-focal) and biopsy with MRI technology (MR410). <i>(Added to NL dictionary to replace CT525 and CT530)</i>	61	61	1

Ultrasound

General Information and Recording Instruction for Ultrasound

1. The workload units assigned may include 3D and/or 4D qualitative Doppler (colour), however, they do not include quantitative Doppler (measurements) unless specifically indicated. If quantitative Doppler is performed in addition to the described exam, add the appropriate unit value as described in activity US110.
2. Workload includes all component activities integral to the MI conceptual model for the MI workload measurement system. The published US workload unit value includes administration of a radiopharmaceutical or medication (i.e. Lasix, Persantine, Hyoscine, Dobutamine, etc.) with dosage calculations, documentation, MRSA/VRE/latex activities, catheterization, and image acquisition etc. Please refer to the Medical Imaging Conceptual Model for a list of component activities. Contrast media specific to ultrasound, is defined in code US105. For exams that require IV fluid administration for hydration, prevention of nephrotoxicity or other adverse effects of contrast or for other physiologic requirements such as full bladder, maintenance of cardiac output or fluid challenges or for the administration of other radiopharmaceuticals, additional workload units should be reported under MI980 as service recipient activity, Miscellaneous.

3. Any activity in the schedule of unit values can be utilized by any medical imaging functional centre if the unit value is accurate and reflective of the realistic average time required to perform a specified activity. Therefore, workload listed in various medical imaging modalities can be captured in any other medical imaging functional centre, if applicable, however these codes are only listed once, in the modality for which it is most often used
4. Please see Items for Count for the definition of “exam” in Medical Imaging WMS.
5. The average time for post processing reconstruction is 20 workload units that are integrated into the schedule of unit values as a component activity for Ultrasound. To capture workload units greater than 20 minutes, see code MI950 for additional post processing workload. If the images are reconstructed through computer automation with no hands-on technical intervention, workload units are not captured as no unit-producing personnel (UPP) hands-on time is involved.
6. Exams are counted separately if imaging of non-contiguous anatomical parts/regions (non-clustered body structures) is performed (e.g., pelvis and scrotum, or breast and axilla). If contiguous anatomical parts/regions (clustered body structures) are imaged (e.g., umbilicus/abdomen), one exam is counted as defined in the applicable exam code section.

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
General				
US001	Attempted/Failed US exams includes all procedures	N/A	30	1
US105	Contrast - additional units for the use of contrast media including microbubbles (agitated saline) or manufactured contrast media.	30	30	0
US110	Quantitative Doppler, abdominal/pelvic, obstetrical, one anatomical group of venous or arterial blood vessels (e.g., hepatic, renal, uterine & ovarian, etc.) Use if Quantitative Doppler is not included in the description.	30	20	0 (If exam standalone add exam count of 1)

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
Abdominal Ultrasound (Includes Non-obstetrical Pelvis)				
US205	Abdomen, detailed If Quantitative Doppler is included, also count workload for code US110.	35	35	1
US207	Abdomen and appendix If Quantitative Doppler is included, also count workload for code US110.	30	Not used in NL Dictionary	1
US210	Abdomen, limited (may include a follow-up, single quadrant or a limited number of organs) Includes maternal kidney scan. Not accepted If Quantitative Doppler is included, also count workload for code US110.	25	25	1
US211	Renal unilateral or bilateral and bladder with colour Doppler (Code added by NL to reflect the procedure dictionary with correct WLUs)	N/A	30	1
US213	Abdomen and pelvis, limited or preliminary transverse and sagittal imaging- no service recipient preparation (e.g., full bladder etc.) required May also count workload for obstetrical scanning with codes US405-US460, as applicable. If Quantitative Doppler is included, also count workload for code US110.	15	Not used in NL Dictionary	1
US215	Abdomen and pelvis, detailed May also count workload for obstetrical scanning with codes US405-US460, as applicable. If Quantitative Doppler is included, also count workload for code US110.	50	50	1

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
US217	Pelvis and appendix If Quantitative Doppler is included, also count workload for code US110.	30	Not used in NL Dictionary	1
US220	Transabdominal pelvis May also count workload for obstetrical scanning with codes US405-US460, as applicable. If Quantitative Doppler is included, also count workload for code US110.	30	30	1
US225	Pelvis, translabial, female May also count workload for obstetrical scanning with codes US405-US460, as applicable. If Quantitative Doppler is included, also count workload for code US110.	25	25	
US230	Pelvis, or endovaginal (transvaginal) or transrectal, female For obstetrical scan with fetal biophysical profile, aggregate exams US230 and one of either: US440 or US441 specifically, or any other obstetrical exam where endovaginal (transvaginal) imaging technique is not specified. If Quantitative Doppler is included,	30	30	1
US235	Pelvis, transabdominal and endovaginal (transvaginal), female or Pelvis, transabdominal and transrectal, female May also count workload for obstetrical scanning with codes US405-US460, as applicable. If Quantitative Doppler is included, also count workload for code US110.	45	45	1
US240	Sonohysterography Includes contrast. If Quantitative Doppler is included, also count workload for code US110.	60	60	1

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
US245	Prostate/transrectal	30	30	1
US250	Renal Artery Quantitative Doppler (may be used for post-stents or for renal transplants) If Quantitative Doppler is included, also count workload for code US110.)	35	35	1
US251	Renal Transplant Work-up Includes aorta, iliac arteries and veins for diameter and patency. If Quantitative Doppler is included, also count workload for code US110.	30	Not used in NL Dictionary	1
US255	Transplant Ultrasound, non-hepatic Includes quantitative Doppler When performing abdominal ultrasound with quantitative Doppler for non-transplant purposes, refer to code US110	80	80	1
US260	Liver transplant with quantitative Doppler, for special needs service recipients (E.g., pediatrics), if applicable, consider also adding workload for any of codes MI931, MI935, MI940 or MI941, and/or MI970. If Quantitative Doppler is included, also count workload for code US110. QD is already included in WLUs in NL	60	60	1
Echocardiography (Fetal, Neonate, Pediatric/Special Needs, Adult)				
US305	Cardiac, Detailed	55	55	1
US310	Cardiac, Limited	30	30	1
US315	Cardiac, Fetal	50	50	1
US320	Cardiac, Transesophageal	60	60	1
US325	Stress echo (exercise)	60	60	1
US330	Stress echo (pharmacological with Persantine)	60	Not used in NL Dictionary	1
US335	Stress echo (pharmacological with Dobutamine)	80	80	1

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
Obstetrical Ultrasound				
US405	First trimester May include transabdominal, endovaginal (transvaginal), translabial Count once for single fetus. For multiple gestation, also count US445 once for each additional fetus (>1). If Quantitative Doppler is included, also count workload for code US110. QD is already included in WLUs in NL	45	45	1
US410	Nuchal Translucency	35	35	1
US415	Second/third trimester- routine or recheck scan May include Doppler. Includes Biophysical recheck >14 weeks; includes fetal measurements (fetal biometry) FHR, AFI, fetal position, cervix, placenta, and limited or recheck anatomy. May include endovaginal (transvaginal), translabial For maternal kidney scan, use code US210. For multiple gestation, also count US450 once for each additional fetus. If Quantitative Doppler is included, also count workload for code US110. QD is already included in WLUs in NL	55	55	1
US420	Obstetrical Post-16 week-Twins For multiple gestation, also count US450 once for each additional fetus >2. If Quantitative Doppler is included, also count workload for code US110.	90	Not used in NL Dictionary	1
US425	Amniocentesis	45	45	1
US431	Chorionic villi sampling- ultrasound guidance	50	Not used in NL Dictionary	1

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
US435	High risk pregnancy (To be used for highly suspicious or known abnormalities). May include biophysical profile. Includes all imaging in routine scan US405 and US415 plus further detailed measurements and cardiac imaging. If Quantitative Doppler is included, also count workload for code US110. QD is already included in WLUs in NL	55	70	1
US440	Biophysical profile only (scoring only) (E.g., basic or limited scanning or for recheck < 2 weeks after previous biophysical profile exam. See US441 for more detailed US exam) Count once per fetus If Quantitative Doppler is included, also count workload for code US110. QD is already included in WLUs in NL	30	30	1
US441	Biophysical profile and measurements-detailed Includes detailed scanning and fetal measurements (E.g., head, abdomen, femur) resistive index and fetal heartbeat) Includes umbilical cord Doppler	50	50	1
US445	First Trimester - Multiple gestation, additional units per fetus If Quantitative Doppler is included, also count workload for code US110. QD is already included in WLUs in NL	25	25	0
US450	Second/Third Trimester – multiple gestation, additional units per fetus	35	35	0
US455	Limited Obstetric ultrasound for monitoring of fetal position	26	26	1

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
US460	U/S Intrauterine fetal transfusion Includes cordocentesis If Quantitative Doppler is included, also count workload for code US110.	70	Not used in NL Dictionary	1
US465	Umbilical Cord Doppler only May include transabdominal, endovaginal (transvaginal), translabial Count once for single fetus. For multiple gestation, and depending on trimester, also count US445 or US450 once for each additional fetus (>1). If Quantitative Doppler is included, also count workload for code US110.	10	Not used in NL Dictionary	1
Ophthalmic Ultrasound				
US505	Ophthalmic, imaging study, unilateral	30	30	1
US506	Ophthalmic, imaging study, bilateral	35	35	1
US510	Globe B-scan and Standardized A-scan unilateral	30	Not used in NL Dictionary	1
US511	Orbital B-scan and Standardized A-scan bilateral	60	Not used in NL Dictionary	1
US515	Globe immersion B-scan and Standardized A-scan unilateral	30	Not used in NL Dictionary	1
US520	2D High Frequency biomicroscopy immersion anterior segment examination unilateral	30	Not used in NL Dictionary	1
Neurological Ultrasound, includes 2D, Doppler (Pulsed and/or Colour and/or Power)				
US605	Carotid Arteries Bilateral -Includes subclavian and vertebral circulation and occasionally ophthalmic arteries	50	50	1
US610	Carotid artery limited (unilateral). If Quantitative Doppler is included, also count workload for code US110.	30	30	1

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
US615	Intraoperative U/S- for ultrasonography that occurs during a surgical operation If Quantitative Doppler is included, also count workload for code US110.	90	Not used in NL Dictionary	1
US620	Transcranial; May include MCA and/or vertebra-basilar circulation. For Pediatric (>28 days of age to locally defined maximum age) and other special needs service recipients, if applicable, consider also adding workload for any of codes MI931, MI935, MI940 or MI941, and/or MI970. If Quantitative Doppler is included, also count workload for code US110.	35	Not used in NL Dictionary	1
US630	Neonatal Brain	30	30	1
US635	Pediatric brain Note: (Pediatric: >28 days of age to locally defined maximum age) For other special needs service recipients, if applicable, may also consider adding workload for any of codes MI931, MI935, MI940 or MI941, and/or MI970 and/or MI945. Do not also count US630	28	Not used in NL Dictionary	1
Vascular Ultrasound, includes 2D, Doppler (Pulsed and/or Colour and/or Power)				
US715	Extremities arteries Count once per limb If Quantitative Doppler is included, also count workload for code US110.	40	40	1
US720	Extremities veins Count once per limb If Quantitative Doppler is included, also count workload for code US110.	30	30	1
US721	Bilateral extremities veins	N/A	50	2

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
US725	Any other blood vessel (E.g., grafts, arm vein etc.) If Quantitative Doppler is included, also count workload for code US110.	30	30	1
US730	Superior vena cava and neck vessels (E.g., includes jugular veins) If Quantitative Doppler is included, also count workload for code US110.	35	35	1
Small Parts Ultrasound (Includes musculoskeletal)				
US805	Neck (thyroid, parathyroid, lymph nodes)	30	30	1
US806	Thyroid Neck Bed	N/A	60	1
US810	Shoulders, unilateral For bilateral US imaging (e.g., complete exam) of shoulders, when not used for comparison images, count as two exams.	25	25	1
US811	Shoulders, bilateral for image comparison purposes only.	40	40	1
US820	Other Joints, unilateral For bilateral US imaging (e.g., complete exam) of other joints, when not used for comparison images, count as two exams.	25	25	1
US821	Other Joints, bilateral for image comparison purposes only.	35	35	1
US830	Hips, bilateral for image comparison purposes only. For Pediatric (>28 days of age to locally defined maximum age) and other special needs service recipients, if applicable, consider also adding workload for any of codes MI931, MI935, MI940 or MI941, and/or MI970	30	30	1

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
US840	Breast, unilateral For bilateral US imaging (e.g., complete exam) of breasts, when not used for comparison images, count as two exams. May include 3D	25	25	1
US841	Breast, bilateral for image comparison purposes only. May include 3D	40	40	1
US850	Ultrasound guided fine wire localization	45	45	1
US851	Ultrasound guided fine wire localization (breast)- units for second site	20	15	0
US855	Soft tissue or other small part May include superficial mass, hernia, tendon and/or ligament	25	25	1
US856	Soft tissue or other small part bilateral May include superficial mass, hernia, tendon and/or ligament	N/A	40	1
US860	Scrotum/testes with Doppler, quantitative See code NM585 for non-ultrasound testicular imaging.	30	30	1
US865	Local area/penile frequency analysis with Doppler, quantitative	30	30	1
Miscellaneous				
US870	Chest	25		1
US875	Spine	25		1
	Ultrasound guided catheter or central line placement. See Interventional Radiology schedule of unit values to select one of codes IR370, IR371, IR375 or IR380, as applicable. In NL see US886 or US 887			
US885	Surgical specimen (E.g., breast tissue or for confirmation of tumour margins)	17	Not used in NL Dictionary	1

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
US886	Ultrasound guided exam: needle biopsy, paracentesis, aspiration/drainage of fluid, pericardiocentesis, central catheter placement, insertion of catheter, insertion of drainage tube or injection/needles in musculoskeletal anatomy.	N/A	45	1
US887	Ultrasound guided needle biopsy, paracentesis, aspiration/drainage of fluid cyst, pericardiocentesis or central catheter placement multiple sites	N/A	15	1
US888	Ultrasound guided aspiration/removal of calcium deposits musculoskeletal sites	N/A	60	1
US435	High risk pregnancy (To be used for highly suspicious or known abnormalities). May include biophysical profile. Includes all imaging in routine scan US405 and US415 plus further detailed measurements and cardiac imaging. If Quantitative Doppler is included, also count workload for code US110.	55	55	1
US440	Biophysical profile only (scoring only) (E.g., basic or limited scanning or for recheck < 2 weeks after previous biophysical profile exam. See US441 for more detailed US exam) Count once per fetus If Quantitative Doppler is included, also count workload for code US110.	30	30	1
US441	Biophysical profile and measurements-detailed Includes detailed scanning and fetal measurements (E.g., head, abdomen, femur) resistive index and fetal heartbeat) Includes umbilical cord doppler	50	50	1

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
US445	First Trimester - Multiple gestation, additional units per fetus If Quantitative Doppler is included, also count workload for code US110.	25	25	0
US450	Second/Third Trimester – multiple gestation, additional units per fetus	35	35	0
US455	Limited Obstetric ultrasound for monitoring of fetal position May include scanning after 14 weeks gestation for follow up or as a recheck. May include scanning for fetal position, amniotic fluid volume and/or index, cervical length, placental position and fetal heart rate.	26	15	1
US460	U/S Intrauterine fetal transfusion Includes cordocentesis If Quantitative Doppler is included, also count workload for code US110.	70	Not used in NL Dictionary	1
US465	Umbilical Cord Doppler only May include transabdominal, endovaginal (transvaginal), translabial Count once for single fetus. For multiple gestation, and depending on trimester, also count US445 or US450 once for each additional fetus (>1). If Quantitative Doppler is included, also count workload for code US110.	10	Not used in NL Dictionary	1
Ophthalmic Ultrasound				
US505	Ophthalmic, imaging study, unilateral	30	30	1
US506	Ophthalmic, imaging study, bilateral	35	35	1
US510	Globe B-scan and Standardized A-scan unilateral	30	Not used in NL Dictionary	1
US511	Orbital B-scan and Standardized A-scan bilateral	60	Not used in NL Dictionary	1
US515	Globe immersion B-scan and Standardized A-scan unilateral	30	Not used in NL Dictionary	1

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
US520	2D High Frequency biomicroscopy immersion anterior segment examination unilateral	30	Not used in NL Dictionary	1
Neurological Ultrasound, includes 2D, Doppler (Pulsed and/or Colour and/or Power)				
US605	Carotid Arteries Bilateral -Includes subclavian and vertebral circulation and occasionally ophthalmic arteries	50	50	1
US610	Carotid artery limited (unilateral). If Quantitative Doppler is included, also count workload for code US110.	30	30	1
US615	Intraoperative U/S- for ultrasonography that occurs during a surgical operation If Quantitative Doppler is included, also count workload for code US110.	90	Not used in NL Dictionary	1
US620	Transcranial; May include MCA and/or vertebra-basilar circulation. For Pediatric (>28 days of age to locally defined maximum age) and other special needs service recipients, if applicable, consider also adding workload for any of codes MI931, MI935, MI940 or MI941, and/or MI970. If Quantitative Doppler is included, also count workload for code US110.	35	Not used in NL Dictionary	1
US630	Neonatal Brain	30	30	1
US635	Pediatric brain Note: (Pediatric: >28 days of age to locally defined maximum age) For other special needs service recipients, if applicable, may also consider adding workload for any of codes MI931, MI935, MI940 or MI941, and/or MI970 and/or MI945. Do not also count US630	28	Not used in NL Dictionary	1

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
Vascular Ultrasound, includes 2D, Doppler (Pulsed and/or Colour and/or Power)				
US715	Extremities arteries Count once per limb If Quantitative Doppler is included, also count workload for code US110.	40	40	1
US720	Extremities veins Count once per limb If Quantitative Doppler is included, also count workload for code US110.	30	30	1
US721	Bilateral extremities veins	N/A	50	2
US725	Any other blood vessel (E.g., grafts, arm vein etc.) If Quantitative Doppler is included, also count workload for code US110.	30	30	1
US730	Superior vena cava and neck vessels (E.g., includes jugular veins) If Quantitative Doppler is included, also count workload for code US110.	35	35	1
Small Parts Ultrasound (Includes musculoskeletal)				
US805	Neck (thyroid, parathyroid, lymph nodes)	30	30	1
US806	Thyroid Neck Bed	N/A	60	1
US810	Shoulders, unilateral For bilateral US imaging (e.g., complete exam) of shoulders, when not used for comparison images, count	25	25	1
US811	Shoulders, bilateral for image comparison purposes only.	40	40	1
US820	Other Joints, unilateral For bilateral US imaging (e.g., complete exam) of other joints, when not used for comparison images, count	25	25	1
US821	Other Joints, bilateral for image comparison purposes only.	35	35	1

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
US830	Hips, bilateral for image comparison purposes only. For Pediatric (>28 days of age to locally defined maximum age) and other special needs service recipients, if applicable, consider also adding workload for any of codes MI931, MI935, MI940 or MI941, and/or MI970	30	30	1
US840	Breast, unilateral For bilateral US imaging (e.g., complete exam) of breasts, when not used for comparison images, count as two exams. May include 3D	25	25	1
US841	Breast, bilateral for image comparison purposes only. May include 3D	40	40	1
US850	Ultrasound guided fine wire localization	45	45	1
US851	Ultrasound guided fine wire localization (breast)- units for second site	20	15	0
US855	Soft tissue or other small part May include superficial mass, hernia, tendon and/or ligament	25	25	1
US856	Soft tissue or other small part bilateral May include superficial mass, hernia, tendon and/or ligament	N/A	40	1
US860	Scrotum/testes with Doppler, quantitative See code NM585 for non-ultrasound testicular imaging.	30	30	1
US865	Local area/penile frequency analysis with Doppler, quantitative	30	30	1
Miscellaneous				
US870	Chest	25	25	1

US875	Spine	25	25	1
Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
	Ultrasound guided catheter or central line placement. See Interventional Radiology schedule of unit values to select one of codes IR370, IR371, IR375 or IR380, as applicable. In NL see US886 or US 887			
US885	Surgical specimen (E.g., breast tissue or for confirmation of tumour margins)	17	20	1
US886	Ultrasound guided exam: needle biopsy, paracentesis, aspiration/drainage of fluid, pericardiocentesis, central catheter placement, insertion of catheter, insertion of drainage tube or injection/needles in musculoskeletal anatomy.	N/A	45	1
US887	Ultrasound guided needle biopsy, paracentesis, aspiration/drainage of fluid cyst, pericardiocentesis or central catheter placement multiple sites	N/A	15	1
US888	Ultrasound guided aspiration/removal of calcium deposits musculoskeletal sites	N/A	60	1

Nuclear Medicine

General Information and Recording Instructions for Nuclear Medicine:

1. The nuclear medicine section has been developed to be consistent with all other imaging modalities so the total unit value for each exam includes all components needed to complete it. Workload includes all component activities integral to the MI conceptual model for the MI workload measurement system. The published NM workload unit value includes insertion of the IV catheter, IV pump set-up, administration of a pharmaceutical (i.e. Lasix, Captopril, and Octreotide etc.), the inherent dosage calculations, documentation, MRSA/VRE/latex activities, post processing (30 minutes or less) and image acquisition etc. Please refer to the Medical Imaging Conceptual Model for a list of component activities.

2. The established unit values take into consideration various technologies and age of equipment. Unit values represent the average time to perform the exam for the average service recipient by the average UPP service provider under average circumstances. Where the exam typically requires more than one technologist to complete it, the published unit value reflects the total workload units for all the technologists that are expected to be involved in performing that exam. If an exam is not listed in the schedule of unit values, users should establish a standard time using the standardized timing protocol and submit the information to CIHI at fsi@cihi.ca.
3. Exam counts are based on the definition of an exam; a defined technical investigation using an imaging modality to study one body structure, system or anatomical area that yields one or more projections for diagnostic and/or therapeutic purposes. The following scenarios demonstrate when more than one exam is counted: When a service recipient undergoes additional imaging by other modalities, an additional defined exam is also counted, as applicable. (See #6 below).
4. SPECT is defined as one completed camera rotation in any format that results in an image of a specific anatomical area. These units are used for any complete rotation that is in addition to the initial SPECT rotation. Where SPECT is identified in the description, workload for the SPECT component is included in the unit value/exam count. Code NM100 would therefore not be added in this scenario. For exams where initial SPECT imaging is not included in the description, or where SPECT imaging is performed additional to the initial SPECT, also count NM100 if applicable. For example: NM350 + NM100 for 70 workload units and no extra exam count.
5. Attenuation correction is not a component activity. Code NM105 for additional workload due to attenuation activities, however if you find this average time unit value is not representative of the workload within a nuclear medicine functional centre, it may be more appropriate to use Standard time methodology instead.
6. For exams/procedures that are done in conjunction with the NM procedure, aggregate the workload unit values and exam counts from any applicable modality in the Medical Imaging schedule of unit values. For example, in nuclear medicine, CT, GI or US exams are often performed along with an Interventional procedure. These additional exams are aggregated like the examples of the Interventional Radiology introduction section.
7. Any activity in the schedule of unit values can be utilized by any medical imaging functional centre if the unit value is accurate and reflective of the realistic average time required to perform a specified activity. Therefore, workload listed in various medical imaging modalities can be captured in any other medical imaging functional centre, if applicable; however these codes are only listed once, in the modality for which it is most often used.

8. Nuclear Medicine exams each have an integrated 30-minute average time for the post processing reconstruction component activity. To capture workload units beyond 30 minutes for Nuclear Medicine, see code MI950A for additional post processing workload. If the images are reconstructed through computer automation with no hands-on technical intervention, workload units are not captured as no unit-producing personnel (UPP) hands-on time is involved.
9. Each exam in the Nuclear Medicine modality assumes delayed imaging either to a maximum of two images if unspecified in the exam definition or whatever exact number is specified in the exam definition. For additional delayed images, also capture workload for code NM110 for each delayed image exam, however no additional exams are counted.
10. ~~See code MI980 for additional workload associated with provision of IV fluids.~~ For exams that require IV fluid administration for hydration, prevention of nephrotoxicity or other adverse effects of contrast or for other physiologic requirements such as full bladder, maintenance of cardiac output or fluid challenges or for the administration of other radiopharmaceuticals, additional workload units should be reported under MI980 as service recipient activity, Miscellaneous.
11. Please see Items for Count for the definition of "exam" in Medical Imaging WMS.

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
NM001	Attempted cardiac exam	N/A	30	1
NM002	Attempted body/therapeutic	N/A	20	1
NM003	Attempted nuclear medicine	N/A	25	1
NM100	SPECT- Add this unit value to the workload for an exam listed below where SPECT imaging is performed but not specified in the exam definition or when SPECT imaging is performed additionally to the initial SPECT imaging. Count NM100 once only when aggregated with other NM exams. (E.g., NM305 + NM320 + NM100 [count once only] = 30 + 40 +30= 100 workload units) (NL note: NM100 and NM105 counted only once in dictionary)	30	30	0

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
NM105	<p>SPECT/CT when using CT for attenuation, correction, localization only add this unit value to the appropriate exam listed below when using SPECT where SPECT imaging is performed but is not specified in the exam definition.</p> <p>If the CT image is also used for diagnostic purposes, do not count extra workload units.</p> <p>Count NM105 once only when aggregated with other NM exams.</p> <p>(E.g., NM305 + NM320 + NM105 [count once only] = 30 + 40 +30= 100 workload units (NL note: NM100 and NM105 counted only once in dictionary)</p>	40	40	0
NM107	<p>SPECT/CT – Other Add this unit value to the workload for an exam listed below where SPECT or SPECT/CT imaging is performed but not specified in the exam definition Count NM107 once only when aggregated with other NM exams. Do not also count NM100.</p> <p>New exam in 2016 – deleted in 2019</p>	30	TBD	0
NM110	<p>Delayed image</p> <p>Count once per delayed image exam beyond the number stated in the specific exam definition.</p>	30	30	0
NM115	<p>If performing a diagnostic CT only (e.g., not using the SPECT component) with the SPECT/CT instrument, capture units from the CT scan schedule.</p>	See SUVs for CT	Not used in NL Dictionary	

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
NM120	Electrocardiogram (e.g., 12-Lead ECG) when associated with cardiac imaging (e.g., with gated wall motion procedures) Includes lead placement, recording, and documentation. Count only if performed by Medical Imaging unit-producing personnel. Do not also count NM345 and NM350.	11	Not used in NL Dictionary	0
NM130	Post processing in excess of initial 30 minutes – count workload once per increment of 10 minutes.	10	Not used in NL Dictionary	0
NM135	Additional Pulse Sequence Count workload once per sequence in excess of the first four sequences of any NM exam, unless otherwise specified.	5	Not used in NL Dictionary	0
NM140	Flow and Blood Pool image Count only if flow and blood pool image not specified in exam definition but is associated with specific site or whole-body exam.	15	15 Capture via drop down menu	0
Bone				
NM205	Bone specific site Includes Orbital – unilateral or bilateral	50	50	1
NM210	Bone specific site with pinhole projection- first pinhole projection.	60	Not used in NL Dictionary	1
	Used when doing a pinhole projection in conjunction with a regular exam. Count 10 workload units for each pinhole projection >1.	10		0
NM215	Bone specific site with pinhole projection, bone flow and/or blood pool image Count 5 workload units for each pinhole projection >1.	70	Not used in NL Dictionary	2

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
NM220	Bone specific site bone flow and/or blood pool image Includes NM205	60	60	2
NM225	Bone - whole body	50	50	1
NM230	Bone - whole body bone and flow and/or blood pool image Includes NM225 If a whole-body blood pool is performed, add 20 additional workload units.	60	60	2
		20	20	0
NM235	Bone - whole body and spot with additional joint projections Includes NM225	70	70	1
NM240	Bone - whole body including joints with bone flow and/or blood pool image May also count workload for additional joint views (e.g., joint survey) If a whole-body blood pool is performed, add 20 additional workload units.	80	80	2
		15	15	0
		20	20	0
NM245	SI joint ratios (Count for workload associated with calculations only)	10	Not used in NL Dictionary	0
NM250	NM radionuclide arthrogram	25	Not used in NL Dictionary	1
NM255	Bone marrow	75	75	1
	Note: Orbital – unilateral or bilateral See code NM205p			
NM260	Orbital – unilateral or bilateral	TBD	Not used in NL Dictionary	1
NM265	Total Body Survey Includes Tc99m Sulfur Colloid (E.g., to assess bone marrow)	60	Not used in NL Dictionary	1

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
Lung				
Also count workload for NM100 or NM105 once only per combined NM exams, if SPECT and SPECT/CT CT is also performed but not mentioned in the following Cardiovascular NM exam definitions (E.g., NM305+ NM320 + NM100 [count once only] = 30 + 40 +30= 100 workload units)				
NM305	Lung perfusion May include Inferior Vena Cava (IVC)	30	30	1
NM310	Lung perfusion with flow May include Inferior Vena Cava (IVC))	40	Not used in NL Dictionary	1
NM315	Lung perfusion with quantification May include Inferior Vena Cava (IVC)	40	40	1
NM320	Lung ventilation May include gas or aerosol	40	40	1
NM325	Lung ventilation and perfusion May include gas or aerosol	70	70	1
NM330	Lung quantitative ventilation and perfusion	80	Not used in NL Dictionary	1
NM345	12 Lead ECG - rest Includes lead placement, recording, and documentation for ECG interpretation. Count only if performed by unit-producing personnel. For 12-lead ECG-stress test: use code NM350. Do not also count workload for NM350 and NM120.	5	Not used in NL Dictionary	0
Cardiovascular				
Also count workload for NM100 or NM105 once only per combined NM exams, if SPECT and SPECT/CT is also performed but not mentioned in the following Cardiovascular NM exam definitions. (E.g., NM355 + NM365 + NM100 [count once only] = 40 + 65 +30= 135 workload units)				
NM350	Stress test service recipient monitoring. Includes monitoring of ECG during exercise/pharmaceutical stressing for optimal timing of injection of radiopharmaceutical Do not also count workload for NM345 and NM120.	40	Not used in NL Dictionary	0

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
NM355	Rest myocardial viability (E.g., rest and redistribution) May include gating. Includes TL201 Viability Rest Scan and all delayed scans (i.e., immediate, 4 hours, 24-hour)	70	Not used in NL Dictionary	2
NM360	Rest myocardial perfusion May include gating	50	50	1
NM365	Stress (exercise or pharmacological) myocardial perfusion. May include gating Includes the imaging and analysis of the data.	65	65	1
NM366	Rest- myocardial perfusion with pharmacological Includes Tc99m MIBI or MYO Rest Scan Includes post processing reconstruction	30	Not used in NL Dictionary NL – see NM360	1
NM367	Stress- myocardial perfusion scan with pharmacological E.g., Tc99m MIBI or MYO Stress Scan Includes post processing reconstruction	30	Not used in NL Dictionary NL – see NM365	1
NM368	Cardiac scan 99mTc PYP (also known as hot PYP) for cardiac amyloidosis	55	55	1
NM370	Wall motion- resting (E.g., resting cardiac output) Includes resting MUGA scan, in-vivo RBC labelling, G-SPECT (3D) and all additional acquisitions Includes all post-processing reconstruction.	90	74 in-vivo <u>labelling</u> 89 in-vitro <u>labelling</u> 104 <i>modified in-vivo labelling</i> 119 in-vitro <u>labelling</u>	1
	Add 30 workload units for modified in-vivo RBC labelling or in-vitro RBC labelling (e.g., Ultra Tag®).	30	30 via drop down menu	0

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
NM375	Wall motion stress (cardiac output) (E.g., exercise or pharmacological) Includes stress MUGA scan, in-vitro RBC labelling, G-SPECT (3D) and all additional acquisitions.	120	Not used in NL Dictionary	1
	Includes all post-processing reconstruction. Add 30 workload units for in-vivo RBC labelling. Do not count this workload if code NM370 is also being captured.)	30		0
NM380	Myocardial Infarct Imaging	55	55	1
NM385	Superior Vena Cava (SVC)	40	Not used in NL Dictionary	1
NM386	Inferior Vena Cava (IVC)	TBD	Not used in NL Dictionary	1
NM390	Venogram flow - unilateral	35	Not used in NL Dictionary	1
NM391	Venogram flow - bilateral	60	Not used in NL Dictionary	1
NM393	NL defined: Venogram RBC labelling and all additional acquisitions. (In vivo)	70	70 in-vivo <u>labelling</u>	1
	Add 30 workload units for in-vitro RBC labelling, modified in-vivo RBC labelling or (modified) in-vitro RBC labelling	30	Add 30 in-vitro, modified in-vivo, and modified in- <u>vitro labelling</u>	0
NM395	Ventricular Shunt - Right to Left	40	40	1
NM396	Ventricular Shunt - Left to Right	40	40	1

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
Circulatory/Lymphatic				
NM405	Lymphoscintigraphy (whole body) may include 2 images: immediate and delayed For angiogram exams, refer to one of: IR217, MR450 or MR455. For each additional scan>2, add additional 20 workload units	140 20	115 20	1 0
NM406	Lymphoscintigraphy - sentinel node - unilateral breast If SPECT/CT is used, count workload from NM100 or NM105 as applicable. If additional injections are necessary for bilateral breast imaging, count additional 15 workload units.	60 15	95	1 0
NM407	Lymphoscintigraphy – sentinel node melanoma – unilateral; includes 2 FOV SPECT/CT. (NM407 previously used in NL dictionary: Sentinel Node Melanoma Extremity.)	90	N/A see NM407A	1
NM407A	NL code and definition: Lymphoscintigraphy Sentinel Node Melanoma – unilateral. Add NM100 for SPECT and NM105 for SPECT CT as applicable. If additional injections are necessary, count additional 15 workload units.	N/A	115 15	1
NM 410	Whole Body Blood Pool	40	Not in NL Dictionary	1

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
NM412	Lymphoscintigraphy- Sentinel Node Cervix (Add NM100 for SPECT and NM105 for SPECT CT as applicable.)	68	115	1
NM414	Lymphoscintigraphy- Sentinel Node Vulva (Add NM100 for SPECT and NM105 for SPECT CT as applicable.)	68	115	1
Endocrine				
Note: For codes NM425-NM457, may also count workload using code MI980 for IV fluid hydration for neuroendocrine studies if applicable.				
NM425	Parathyroid Includes the injection and first two sets of delayed images, if applicable. Use delayed image code (NM110) for each additional set of delayed images >2. If SPECT/CT is used, count workload from NM100 or NM105 as applicable.	90	90	1
NM430	Thyroid scan Includes Thyrogen I-123 injection Language N/A –given 3 days prior to exam	30	30	1
NM435	Thyroid uptake (includes 2 uptakes). Includes first two sets of delayed images, if applicable. Use delayed image code (NM110) for each additional set of delayed images >2.	30	30	1
NM437	Thyrogen I-131 E.g., for ablation	75	Not in NL Dictionary	1
NM440	Adrenal Cortex. Includes injection and first three sets of delayed images, if applicable. Use delayed image code (NM110) for each additional set of delayed images >3.	140	140	1
NM445	Iodine whole body	60	60	1
NM450	I131 specific site. Includes injection and first 4 sets of delayed images, if applicable. Use delayed image code (NM110) for each additional set of delayed images >4	50	Not used in NL Dictionary	1

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
NM451	MIBG (I123) specific site (may include adrenal medulla). Includes injection and first two sets of delayed images, if applicable. Use delayed image code (NM110) for each additional set of delayed images >2	80	Not used in NL Dictionary	1
NM452	MIBG (I131) specific site (may include adrenal medulla). Includes injection and first two sets of delayed images, if applicable. Use delayed image code (NM110) for each additional set of delayed images >2.	85	85	1
NM453	Octreotide specific site. May include adrenal medulla. Includes injection and first two sets of delayed images, if applicable. Use delayed image code (NM110) for each additional set of delayed images >2. Do not count code PT105 in addition to this exam.	85	Not used in NL Dictionary	1
NM455	MIBG (I123) whole body; Includes the injection and first two sets of delayed images, if applicable. Use delayed image code (NM110) for each additional set of delayed images >2.	95	Not used in NL Dictionary	1
NM456	MIBG (I131) whole body Includes the injection and first two sets of delayed images, if applicable. Use delayed image code (NM110) for each additional set of delayed images >2.	100	Not used in NL Dictionary	1
NM457	Octreotide whole body. Includes injection and first two sets of delayed images, if applicable. Use delayed image code (NM110) for each additional set of delayed images >2. Do not count PT105 in addition to this exam.	110	110	1

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
Central Nervous System				
NM475	Cisternography- Includes first-three sets of delayed images, if applicable. Use delayed image code (NM110) for each additional set of delayed images >3. <i>Replaces NM490</i>	170	175	1
NM480	Brain SPECT (cerebral perfusion) Do not count code NM100.	85	85	1
NM481	Brain SPECT CT (cerebral perfusion) Do not count code NM105.	95	95	1
NM485	Brain death study	35	35	1
NM490	Cisternography. Includes injection and first four sets of delayed images, if applicable >4. See NM475	175	175	1
NM495	CSF Shunt, unilateral or bilateral	60	60	1
NM496	CSF leak Includes injection and first three sets of delayed images, if applicable Use delayed image code (NM110) for each additional set of delayed images >3.	170	170	1
NM497	CSF leak with pledget counting Includes injection and first three sets of delayed images, if applicable. Use delayed image code (NM110) for each additional set of delayed images >3 May count extra 15 workload units for each pledget insertion	230	230	1
		15	15	0

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
Kidney				
NM505	Renal Morphological Imaging - static	50	50	1
NM506	Renal Morphological Imaging – with flow	60	Not used in NL Dictionary	2
NM510	Cystogram Direct	65	65	1
NM511	Cystogram Indirect	40	Not used in NL Dictionary	1
NM515	Renal Dynamic study (flow and function)	60	60	1
NM520	Captopril Administration and Monitoring For use only if performed by unit-producing personnel. Includes only the administration and monitoring of Captopril. Also count workload for code NM515 for the exam.	60	30	0
NM525	Diuretic Administration For use only if performed by unit-producing personnel. Includes only the administration and monitoring of diuretic. Also count workload for code NM515 for the exam.	10	10	0
NM530	Renal Transplant	60	Not used in NL Dictionary	1
NM535	GFR Gamma camera method Includes a renal dynamic study. Includes measuring pre and post blood pressure due to medication administration. For IV pre-hydration, use code MI980. Do not count NM515 separately.	80	80 WH only	1
NM536	GFR Blood test method Includes measuring pre and post blood pressure due to medication administration. For IV pre-hydration, use code MI980.	75	75 EH only	1

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
NM540	ERPF Blood Sample Method. Note: includes all component activities (E.g., IV insertion, IV pump set-up etc.)	75	Not used in NL Dictionary	1
Soft Tissue				
NM550	Gallium specific site. Includes first four sets of delayed images, if applicable. Use delayed image code (NM110) for each additional set of delayed images >4.	55	55	1
NM551	Gallium whole body Includes first four sets of delayed images, if applicable. Use delayed image code (NM110) for each additional set of delayed images >4.	60	60	1
NM555	Dacrosintigraphy (lacrimal duct) without quantitative analysis	55	55	1
NM556	Dacrosintigraphy (lacrimal duct) with quantitative analysis	70	Not used in NL Dictionary	1
NM560	Scintimammography	65	Not used in NL Dictionary	1
NM565	WBC Indium specific site (does not include labelling). Includes first set of delayed imaging, if applicable. Use delayed image code (NM110) for each additional set of delayed images >1.	70	Not used in NL Dictionary	1
NM566	WBC Indium whole body (does not include labelling) Includes all delayed imaging, if applicable.	85	Not used in NL Dictionary	1
NM570	WBC Technetium specific site (does not include labelling). Does Includes first set of delayed imaging, if applicable. Use delayed imaging code (NM110) for each additional set of delayed images >1	65	65	1

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
NM571	WBC Technetium whole body. Does not include labelling- see code NM575. Includes first set of delayed imaging, if applicable. Use delayed imaging code (NM110) for each additional set of delayed images>1	85	85	1
NM575	WBC labelling (includes labelling with any radionuclide)	120	120	0
NM580	Peritoneal Scan (abdominal shunt patency)	65	Not used in NL Dictionary	1
NM585	NM Testicular Scan For Sonography, see US246	40	40	1
NM590	Prostate Therapy (e.g., Radium-223)	60	60 <i>(to be reassessed)</i>	1
NM595	Whole body survey Includes Tc99m Sestamibi and Tl201 Thallous Chloride (E.g., assess for metabolic oncology) Use delayed image code (NM110) for each additional set of delayed images >2	60	60	1
Gastro-Intestinal				
NM605	Liver / spleen	35	35	1
NM606	Liver / Spleen with flow	45	Not used in NL Dictionary	1
NM610 <i>(Next release)</i>	RBC liver with flow Includes in-vitro (<i>/modified in vivo - next release</i>) RBC labelling. Add 30 workload units for modified in vivo RBC labelling or modified in vitro RBC labelling	89 30	74 in-vivo labelling 89 in-vitro (<i>or modified in-vivo - next release</i>) labelling	1 0

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
NM611	RBC spleen with flow. Includes heat damage in-vitro RBC labelling.	150	Not used in NL Dictionary	1
NM615	Esophageal motility	45	45	1
NM620	Gastroesophageal reflux	75	75	1
NM625	Lung Aspiration	65	65	1
NM630	Solid Gastric Emptying	130	130	1
NM631	Liquid Gastric Emptying	120	120	1
NM635	Port-a-cath patency	15	Not used in NL Dictionary	1
NM640 (Next release)	RBC Labelling for GI Bleed – in vitro (e.g., Ultra Tag®) or modified in-vitro/in-vivo labelling-next release Replaces NM641. NL combine with NM645.	30	45	0
NM641 (Next release)	RBC Labelling for GI Bleed – Modified in vivo/in vitro	30	45	0
NM645	RBC GI Bleed Imaging and flow	130	120	1
NM650	Pharmacologic Intervention for GI Bleed (Count ONLY if performed by unit-producing personnel).	15	Not used in NL Dictionary	0
NM655	Colloid GI Bleed	55	Not used in NL Dictionary	1
NM660	Gastrointestinal mucosa (Meckel's)	70	70	1
NM661	Gastrointestinal mucosa (Meckel's) with Pharmacologic Intervention (Count ONLY if performed by unit-producing personnel).	85	Not used in NL Dictionary	1
NM665	Hepatobiliary Scan	85	85	1

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
NM666	<p><i>NL definition:</i> Hepatobiliary Scan with Pharmacologic Intervention (<i>Morphine</i>) with or without gallbladder ejection fraction Do not count NM665 separately. Definition revised 2022 Hepatobiliary Scan with Pharmacologic Intervention with gallbladder ejection fraction. Do not count NM665 separately.</p>	115 (CIHI WLU = 105)	115 NL TBD	1
NM667 New exam 2022	Hepatobiliary Scan with Pharmacologic Intervention without gallbladder ejection fraction. Do not count NM665 separately.	105	TBD	1
NM670	<p><i>NL definition:</i> Gallbladder Ejection fraction <i>via fatty meal/CCK -non pharmaceutical</i> Includes the Hepatobiliary Scan. Do not count NM665 separately.</p>	110	130	1
NM675	G.I. Transit Time (E.g., entire gastrointestinal tract)	50	Not used in NL Dictionary	1
NM680	Salivary gland	60	60	1
NM685	SeHCAT ([75Se] Tauroselcholic acid) (E.g., bile acid pool measurement and bile acid malabsorption investigation)	150	150	1
Miscellaneous General Nuclear Medicine Imaging				
NM690	Mobile Examination for Nuclear Medicine Do not also count workload for code MI900.	35	Not used in NL Dictionary	0
Therapeutic				
NM705	Treatment with I131 (E.g., for malignancy). Includes room preparation, service recipient assessment and/or counselling.	195	195	1
NM710	Treatment with I131 hyperthyroid	25	25	1

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
NM715	Treatment with Strontium-89 (SR89)	60	60	1
NM720	Treatment with Phosphorous-32 (P32)	30	Not used in NL Dictionary	1
NM722	Treatment with Yttrium 90 for liver radioembolization. Includes injection of 99mTc MAA in Interventional Radiology and a whole-body scan of the 99mTc MAA back in nuclear medicine and the injection of Yttrium 90 beads in Interventional Radiology and a PET Yttrium scan. Includes room setup.	330	Not used in NL Dictionary	1
NM725	Synovectomy treatment with colloid (Y90 or P32)	60	Not used in NL Dictionary	1
NM730	Treatment with monoclonal antibody – Y90 Chloride	95	95	1
NM735	Treatment with monoclonal antibody – I131	100	Not used in NL Dictionary	1
NM740	Treatment with Octreotide	195	Not used in NL Dictionary	1
NM745	Treatment with MIBG I131	195	195	1
NM750	Previously in dictionary as Samarium 153 Therapy – deleted as no longer practice. Therapy Miscellaneous Therapy (For esoteric or new therapies such as Radium 223). NL did not accept new language.	Standard or actual time	Not used in NL dictionary See NM590	1
Non-Imaging				
NM805	Protein losing enteropathy See code NM685	160	160	1
NM810	Red cell mass	95	Not used in NL Dictionary	
NM815	Plasma volume	100	Not used in NL Dictionary	
NM820	RBC and plasma volume	140	140	

NM825	Red cell/platelet sequestration	190	190	
NM830	Carbon 14 Breath Test	50	50	
NM840	Blood procurement for testing other than for nuclear medicine purposes	10	Not used in NL Dictionary	

Positron Emission Tomography/Computed Tomography (PET/CT)

1. Please see Items for Count for the definition of “exam” in Medical Imaging WMS.
2. Post processing times average 20 workload units for PET/CT. These average times for post processing are already integrated into existing unit values. Use code MI950 (counted in 10-minute increments) to capture additional post processing reconstruction workload greater than 20 minutes. If the images are reconstructed through computer automation with no hands-on technical intervention, additional workload units for post processing reconstruction are not captured as unit-producing personnel hands-on time is not involved.
3. For exams that require IV fluid administration for hydration, prevention of nephrotoxicity or other adverse effects of contrast or for other physiologic requirements such as full bladder, maintenance of cardiac output or fluid challenges or for the administration of other radiopharmaceuticals, additional workload units should be reported under MI980 as service recipient activity, Miscellaneous.

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
The following are additional units that may be added to the exams listed below:				
PT001	Attempted PET CT	NA	90	1
PT100	Additional frames (fields of view) with or without attenuation	15	15 Collect via drop down menu	0
PT105 (next release)	Preparation of service recipient for radiation treatment	25	25	0

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
PT110	Lasix Administration Does not include additional pre- and post-image. Use additional frames (see above) if required. Count ONLY if performed by unit-producing personnel.	10	N/A	0
PT115	Oral Contrast Administration Count ONLY if performed by unit-producing personnel	10	N/A	0
PT115A <i>(next release)</i>	IV Contrast Administration Count ONLY if performed by unit-producing personnel	N/A	25 <i>15 WLU for initial tech and 10 mins for second tech</i>	0
PT120	Retrospective reconstruction (e.g., using different filters)	15	15 Collect via drop down menu	0
PT125	Gating (cardiac or respiratory) <i>See NL codes below</i>	25	N/A	0
PT125A <i>(next release)</i>	Gating - cardiac	N/A	25	0
PT125B <i>(next release)</i>	Gating - respiratory	N/A	25 Collect via drop down menu	0
PT130	Dynamic (includes the extra time required for the immediate real time images)	Actual or Standard Time	N/A	0
PT135	Extra paperwork required for Clinical Trial Protocol To be categorized as non-service recipient activity	20	N/A	0

The four exams below include any glucose testing required:

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
PT200	Brain only	85	85	1
PT205	Cardiac only	90	90	1
PT210	Whole Body	150	150	1
PT215	Near Whole Body (eyes to thighs)	115	115	1
PT220 (next release)	Head only	15	15	1
PT225	Neck only	15	N/A	1
PT230 (next release)	Head and neck, only, combined <i>Replaces NL Code PT903</i>	25	25	1
PT235 (next release)	Upper extremity only	18	18	1
PT240 (next release)	Lower extremity only	18	18	1
PT245	Abdomen only	17	N/A	1
PT250	Pelvis only	17	N/A	1
PT255 (Next release)	Abdomen and pelvis, only, combined	19	TBD	1
PT901	Delayed PET CT	N/A	45	1
PT902	Limited site not listed above	N/A	85	1

PT903	Detailed limited head and neck (completed in conjunction with NL whole body PET procedures) <i>Replaced by CIHI code PT230</i>	N/A	15	1
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Cardiac Catheterization Diagnostic Services

General Information and Recording Instructions

1. In most cases, most cardiac catheterization exams require two people to complete all activities. Where the exam typically requires more than one technologist, the published unit value reflects the total workload units for all the technologists that are expected to be involved in performing that exam.
2. If the work is done by one medical radiation technologist and one nurse, only the portion of time that is applicable to the medical radiation technologist is reported under the medical imaging workload measurement system in the Cardiac Catheterization Diagnostic Services (71 4 15 55) functional centre. The medical radiation technologist also reports the exam count that is specified in the schedule of unit values. Workload and service activity statistics for the nurses involved in the exam is collected using their nursing workload measurement system, in the Cardiac Catheterization Diagnostic Services Nursing (71 4 05 15 55) functional centre.
3. Multiple exams/activities are to be aggregated when performed in sequence such as a percutaneous coronary intervention with thrombus aspiration, stent(s) insertion and intravascular ultrasound (IVUS).
4. The cardiac catheterization diagnostic services section has been developed to be consistent with all other imaging modalities so the total unit value for each exam includes all components needed to complete it. Workload includes all component activities integral to the MI conceptual model for the MI workload measurement system. The published CC workload unit value includes insertion of the IV catheter, IV pump set-up, administration of a pharmaceutical, the inherent dosage calculations, documentation, MRSA/VRE/latex activities, post processing and image acquisition etc. Please refer to the Medical Imaging Conceptual Model for a list of component activities.
5. For exams that require IV fluid administration for hydration, prevention of nephrotoxicity or other adverse effects of contrast or for other physiologic requirements such as full bladder, maintenance of cardiac output or fluid challenges or for the administration of other radiopharmaceuticals, additional workload units should be reported under MI980 as service recipient activity, Miscellaneous.
6. The established unit values take into consideration various technologies and age of equipment. Unit values represent the average time to perform the exam for the average service recipient by the average UPP service provider under average circumstances.

Where the exam typically requires more than one technologist to complete it, the published unit value reflects the total workload units for all the technologists that are expected to be involved in performing that exam. If an exam is not listed in the schedule of unit values, users should establish a standard time using the standardized timing protocol and submit the information to CIHI at fsi@cihi.ca.

7. The average time for post processing reconstruction is 20 workload units that are integrated into the schedule of unit values as a component activity for Cardiac Catheterization. See code MI950 for additional post processing workload greater than 20 minutes. If the images are reconstructed through computer automation with no hands-on technical intervention, workload units are not captured as no unit-producing personnel (UPP) hands-on time is involved.
8. Please see Items for Count for the definition of “exam” in Medical Imaging WMS.
9. Most exams in the Cardiac Catheterization modality rely on fluoroscopy as part of the exam (E.g., angiography exams). For this reason, 15 minutes of fluoroscopy time is integrated into the published unit values where applicable. Where fluoroscopy time is longer than 15 minutes, count extra workload units using code MI955.

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
CC001 Add on	Attempted - Angioplasty coronary percutaneous transluminal (PTCA)	N/A	45	0
CC002 Add on	Attempted - Catheterization intervention heart -Chronic total occlusion	N/A	45	0
CC101 C Cath US	Fractional flow reserve (FFR) and/or intravascular ultrasound (IVUS)- Add-on	15	15	1
Add on	Aggregate with other workload when FFR/IVUS is performed but is not included in a specific exam description	15	15	0
CC101 C Cath US	Intravascular ultrasound (IVUS)	15	15	1
Add on	Aggregate with other workload when FFR/IVUS is performed but is not included in a specific exam description	15	15	0

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
CC102 Add on	Nitric oxide challenge - performed to assess pulmonary hypertension and determine response to medication.	N/A	30	0
CC104 Add on	Screening of the Supraaortic vessels during a cardiac catheterization	N/A	5	0
CC104 Add on	Arterial catheter guided through the body to the femoral artery – with contrast	N/A	5	0
CC105	Biopsy- myocardial Do not also count IR227, IR428 or MR410.	15	15	0
CC106 Add on	Pulmonary Artery Angiogram	N/A	5	0
CC110	Transplant Evaluation	40	Not used in NL dictionary	1
CC115	Diagnostic cardiac catheterization (angiography) - Coronary arteries	35	Not used in NL dictionary	1
CC120	Diagnostic cardiac catheterization (angiography) - Left heart and coronary arteries	40	50	1
CC120A Add on	Diagnostic cardiac catheterization (angiography) - with intervention - single vessel. Add extra manual WLU for unusually long cases	N/A	30	0
CC120B Add on	Diagnostic cardiac catheterization (angiography) - with intervention - multi vessel. Add extra manual WLU for unusually long cases	N/A	60	0
CC125	Diagnostic cardiac catheterization (angiography) - Right heart	30	30	1
CC125A Add on	Diagnostic cardiac catheterization (angiography)	N/A	30	0
CC130	Diagnostic cardiac catheterization (angiography) - Left and right heart and coronary arteries	70	Not used in NL dictionary	1

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
CC135 Add on	Diagnostic cardiac catheterization (angiography) - Left heart and coronary arteries and grafts	70	50	1
CC140	Diagnostic cardiac catheterization (angiography) - Left and right heart and coronary arteries with grafts	85	Not used in NL dictionary	1
CC145	Diagnostic cardiac catheterization (angiography) - Intra-aortic, left heart and coronary arteries	65	Not used in NL dictionary	1
CC147	Diagnostic cardiac catheterization (angiography) –Left heart, aortic root and coronary arteries	70	Not used in NL dictionary	1
CC148	Diagnostic chronic total occlusion exam	180	180	1
CC148A Add on	Diagnostic chronic total occlusion exam	N/A	60	0
CC150	Diagnostic cardiac catheterization (angiography) - Congenital anomalies	Actual or Standard Time	Not used in NL	1
CC155	Percutaneous coronary intervention (PCI) (angioplasty) Use this code only when PCI is performed alone.	65	Not used in NL dictionary	1
CC155A	Percutaneous coronary intervention (PCI) (angioplasty) - single vessel Use this code only when PCI is performed alone. Add extra manual WLU for unusually long cases i.e. unplanned.	N/A	80	1

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
CC155B Add on	Percutaneous coronary intervention (PCI) (angioplasty) -multiple vessel Use this code only when PCI is performed alone. Add extra manual WLU for unusually long cases i.e. unplanned.	N/A	45	0
CC160	Percutaneous coronary intervention (PCI) (angioplasty) - with Doppler	Actual or Standard Time	Not used in NL dictionary	1
CC165	Percutaneous coronary intervention (PCI) (angioplasty) - with thrombolytics	65	Not used in NL dictionary	1
CC171	Percutaneous coronary intervention (PCI) (angioplasty) - with IVUS	85	Not used in NL dictionary	1
CC172	Percutaneous coronary intervention (PCI) (angioplasty) – with ICE	85	Not used in NL dictionary	1
CC173	Percutaneous coronary intervention (PCI) (angioplasty) - with IVUS and ICE	100	Not used in NL dictionary	1
CC175	Percutaneous coronary intervention (PCI) (angioplasty) – with thrombus aspiration	65	Not used in NL dictionary	1
CC180	Percutaneous coronary intervention (PCI) (angioplasty) – with fractional flow reserve (FFR)	75	Not used in NL dictionary	1
CC185	Percutaneous coronary intervention (PCI) (angioplasty) – with atherectomy	75	Not used in NL dictionary	1
CC190	Percutaneous coronary intervention (PCI) (angioplasty) – with intra-aortic balloon pump (IABP)	70	45	1
CC190B Add on	Percutaneous coronary intervention (PCI) (angioplasty) – with intra-aortic balloon pump (IABP)	N/A	15	0
CC195	Percutaneous coronary intervention (PCI) (angioplasty) – with one stent deployment	80	Not used in NL dictionary	1

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
CC196	Percutaneous coronary intervention (PCI) (angioplasty) – Count once for each additional stent deployed >1	20	Not used in NL dictionary	0
CC200	Percutaneous coronary intervention (PCI) with diagnostic catheterization only	80	Not used in NL dictionary	1
CC205	Percutaneous coronary intervention (PCI) with diagnostic catheterization - with atherectomy	80	Not used in NL dictionary	1
CC206	Percutaneous coronary intervention with diagnostic catheterization - with thrombus aspiration	70	Not used in NL dictionary	1
CC210	Percutaneous coronary intervention (PCI) with diagnostic catheterization - with intracardiac ultrasound (ICE)	90	Not used in NL dictionary	1
CC215	Percutaneous coronary intervention (PCI) with diagnostic catheterization - with intravascular ultrasound (IVUS)	90	Not used in NL dictionary	1
CC220 C Cath US	Intracardiac ultrasound (ICE) Use this code only when performed alone.	30	15	1
CC220A Add on	Intracardiac ultrasound (ICE) ADD ON - no image Use this code only when performed alone.	N/A	15	0
CC225	Intravascular ultrasound (IVUS) Use this code only when performed alone.	30	Not used in NL dictionary	1
CC235	Atherectomy Use this code only when performed alone.	30	Not used in NL dictionary	1
CC240	Atrial septal defect (ASD) closure Pediatric and/or Special Needs Service Recipients- also add workload for any of codes MI931, MI935, MI940 or MI941, and/or MI970.	110	Not used in NL dictionary	1

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
CC245	Patent foramen ovale (PFO) closure Pediatric and/or Special Needs Service Recipients- also add workload for any of codes MI931, MI935, MI940 or MI941, and/or MI945 and/or MI970.	110	Not used in NL dictionary	1
CC250	Septal ablations	90	Not used in NL dictionary	1
CC255	Valvuloplasty	115	Not used in NL dictionary	1
CC260	Ventricular assist devices	50	Not used in NL dictionary	1
CC265	Percutaneous valve replacement	150	120	1
	Fluoroscopy only- see code MI955			
	When fluoroscopy is performed in the absence of any other exam, count workload for code MI955 plus 1 exam. Round up to the higher total unit value whenever the actual increment is 5 minutes or more. (E.g., if ≥5 minutes, round up to 10 and if less, round down)	10 10	Not used in NL dictionary	0 1
CC280	Percutaneous coronary intervention (PCI) with additional component - select only once per procedure (use for right heart	25	Not used in NL dictionary	0
CC290	Catheterization, right and left ventricle -Aortogram, coronary angiography with grafts	95	Not used in NL dictionary	1
CC295 Add on	Swan Ganz Insertion	30	15	0

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
CC305	Septostomy (E.g., Tetralogy of Fallot) Pediatric and/or Special Needs Service Recipients- also add workload for any of	Actual or Standard Time	Not used in NL dictionary	1
CC310	Mitral Valve Clip	150	Not used in NL dictionary	1
CC320	Electrophysiology Study (EPS)	50	50	1
CC320A Add on	Electrophysiology Study (EPS) - heart diagnostic left	N/A	20	0
CC325	Ablation - without complex 3D mapping Includes cardioversion, when required.	80	Not used in NL dictionary	1
CC330	Ablation - with complex 3D mapping (e.g., Carto, Navex, Ablation Frontier) Includes cardioversion, when required.	Actual or Standard Time	Not used in NL dictionary	1
CC335	Permanent Pacemaker Implant– implant of single or dual chamber device Note: the workload for this activity is captured in Cardiac Catheterization Lab functional centres only Do not count workload for IR920 in addition to CC335.	60	Not used in NL dictionary	1
CC335A	Permanent Pacemaker Implant– implant of single chamber device. Note: the workload for this activity is captured in Cardiac Catheterization Lab functional centres only. Do not count workload for IR920 in addition to CC335.	N/A	60	1
CC335B Add on	Permanent Pacemaker Implant– implant of dual chamber device. Note: the workload for this activity is captured in Cardiac Catheterization Lab functional centres only. Do not count workload for IR920 in addition to CC335.	N/A	15	0

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
CC340 Add on	Permanent Pacemaker Implant– implant of biventricular device Note: the workload for this activity is captured in Cardiac Catheterization Lab functional centres only Do not count workload for IR920 in addition to CC340.	110	30	0
CC345	Permanent Pacemaker Implant – replacement single or dual chamber device with/without lead(s) Note: the workload for this activity is captured in Cardiac Catheterization Lab functional centres only Do not count workload for IR920 in addition to CC345.	50	60	1
CC346	Permanent Pacemaker - revision of pocket	N/A	75	1
CC350	Permanent Pacemaker Implant – replacement of biventricular device with/without lead(s) Note: the workload for this activity is captured in Cardiac Catheterization Lab functional centres only Do not count workload for IR920 in addition to CC350.	90	Not used in NL dictionary	1
CC355	Implantable Loop Recorder - implant	45	45	1
CC360	Implantable Loop Recorder – explant	45	45	1
CC370	Replacement of Permanent Pacemaker lead(s)	50	Not used in NL dictionary	1

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
CC375	Revision of Permanent Pacemaker lead(s)	60	Not used in NL dictionary	1
CC380	Cardioversion – electrical stimulation Capture this activity only if performed by unit-producing personnel (E.g., MRT).	45	Not used in NL dictionary	1
CC385	Defibrillation Threshold Testing - (E.g., post-ICD implantation)	25	Not used in NL dictionary	1
CC390	Implantable Cardioverter Defibrillator (ICD) - implant of single or dual chamber device	120	Not used in NL dictionary	1
CC390A	Implantable Cardioverter Defibrillator (ICD) - implant of single chamber device	N/A	75	1
CC390B Add on	Implantable Cardioverter Defibrillator (ICD) - implant of dual chamber device	N/A	15	0
CC390C Add on	Implantable Cardioverter Defibrillator (ICD) - implant of biventricular device	N/A	30	0
CC395	Implantable Cardioverter Defibrillator (ICD) – implant of CRT device	200	Not used in NL dictionary	1
CC400	Implantable Cardioverter Defibrillator (ICD) - replacement of single or dual chamber device with/without leads	120	75	1
CC405	Implantable Cardioverter Defibrillator (ICD) – replacement of CRT device with/without leads	150	Not used in NL dictionary	1
CC410	Replacement of ICD lead(s) only	120	Not used in NL dictionary	1
CC420	Revision of ICD lead(s) only	120	Not used in NL dictionary	1
CC420A	Insertion of lead ventricular left	N/A	110	1
CC420B	Revision of lead ventricular left	N/A	100	1
CC420C	Insertion of lead ventricular right	N/A	70	1

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
CC420D	Revision of lead ventricular right	N/A	100	1
CC420E	Insertion of lead atrium right	N/A	110	1
CC420F	Revision of lead atrium right	N/A	100	1
CC425	Laser vascularisation transmyocardial	120	Not used in NL dictionary	1
	Fractured (broken) catheter or catheter fragment extraction See code IR355		Not used in NL dictionary	
CC435 Add on	Pericardial puncture with or without drain	45	5	0
CC440 Add on	Insertion of ventricular assist device (E.g., ECMO, Impella) Note: activity is performed in Cardiac Catheterization Lab only	150	120	0
CC445	Removal of ventricular assist device (E.g., ECMO, Impella) Note: activity is performed in Cardiac Catheterization Lab only	150	Not used in NL dictionary	1
CC445A	Removal of ICD or pacemaker	N/A	60	1
CC450	Angiogenesis	115	Not used in NL dictionary	1
CC455	Thoracotomy, with laser Note: activity is performed in EPS or Cardiac Catheterization Lab only	150	Not used in NL dictionary	1
CC460	Drainage of an abscess or haematoma during a pacemaker or a defibrillator	50		1
CC461 Add on	Defibrillator Threshold Testing (DFT)	N/A	10	0
CC462 Add on	Intravascular Lithotripsy (Shockwave)	N/A	10	0
CC465	Flutter correction (Overdrive)	45	Not used in NL dictionary	1
CC466	Rotablation	N/A	120	1

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
CC466 Add on	Rotablation	N/A	20	0
CC467	Antegrade and/or retrograde approach to open a chronically occluded coronary artery. Revised by CIHI 2022-See CC148	N/A	210	1
CC467A Add on	Antegrade and/or retrograde approach to open a chronically occluded coronary artery. Revised by CIHI 2022-See CC148	N/A	60	0
CC500	Holter monitor (e.g. 24-48 hrs) Includes attachment to or disconnection from the monitor. Count one exam only either upon initiation completion of the scan. Excludes cardiac event recorders.	30	Not used in NL dictionary	1
CC510	Cardiac event recorder Includes event loop monitors and symptom event monitors Excludes Holter monitors. Count one exam only either upon initiation completion of the scan.	30	Not used in NL dictionary	1
	Cryotherapy/Radiofrequency ablation/Thermoablation- See codes IR560 or IR565		Not used in NL dictionary	
CC920	Temporary pacemaker Note: the workload for this activity is captured in Cardiac Catheterization Lab functional centres only	35	Not used in NL dictionary	1
CC920A Add on	Temporary pacemaker insertion and removal Note: the workload for this activity is captured in Cardiac Catheterization Lab functional centres only	N/A	20	0

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
CC920B Add on	Temporary pacemaker - removal only Note: the workload for this activity is captured in Cardiac Catheterization Lab functional centres only	N/A	5	0
CIHI IR560 used to reflect CC560B Add on	Cryotherapy/Radiofrequency ablation/Thermoablation- See codes: IR560 Cryosurgery/Radiofrequency ablation/ Thermoablation Count once for first lesion.	N/A	30	0
CIHI IR560 used to reflect CC560A	Isolation of pulmonary vein and Cryotherapy/Radiofrequency ablation/Thermoablation- See codes: IR560 Cardiac Cath functional centre only. NL defined.	N/A	145	1
CIHI IR215 used to reflect CC215	Venogram NL code and definition	N/A	15	1
CIHI IR215 used to reflect CC215 Add on	Venogram NL code and definition	N/A	15	0
CIHI US725 used to reflect CC725	Vascular ultrasound. Any blood vessel (E.g. grafts, arm vein etc.)	30	30	1
CIHI US725 used to reflect CC725 Add on	Vascular ultrasound. Any blood vessel (E.g. grafts, arm vein etc.)	30	30	0

Magnetic Resonance Imaging

General Information and Recording Instructions for Magnetic Resonance Imaging

1. When a request is received to perform an enhanced and a non-enhanced image, count the combined code as 1 exam. However, if a request is received to perform a non-enhanced image, and as a result of the evaluation of the non-enhanced image, an

enhanced image is requested, count the non-enhanced and enhanced separately as 2 exams.

2. Where applicable, both accessing the vein and injection of contrast media or radiopharmaceuticals is included in the appropriate exam. Workload includes all component activities integral to the MI conceptual model for the MI workload measurement system. The published MRI workload unit value includes insertion of the IV catheter, IV pump set-up, administration of a pharmaceutical (~~i.e. Lasix, Captopril, and Octreotide etc.~~), the inherent dosage calculations, documentation, MRSA/VRE/latex activities, and image acquisition etc. Please refer to the Medical Imaging Conceptual Model for a list of component activities.

- ~~3. For exams that require IV fluid administration for hydration, prevention of nephrotoxicity or other adverse effects of contrast or for other physiologic requirements such as full bladder, maintenance of cardiac output or fluid challenges or for the administration of other radiopharmaceuticals, additional workload units should be reported under MI980 as service recipient activity, Miscellaneous. See code MI980 for additional workload associated with provision of IV fluids.~~

Note: Not applicable to MRI modality

4. When performing an enhanced cardiac image pre and post stress, capture workload as follows:
 - Pre stress image: MR311 Cardiac, gated, enhanced – 1 exam, 60 workload
 - Stressing: MR320 Cardiac, stress – 0 exam, 20 workload units
 - Post stress image: MR311 – 1 exam, 60 workload units
 - Total exams = 2
 - Total workload = 60 + 20 + 60
5. When performing an arthrogram, capture MR370 for the injection of the contrast media in the joint and MR361 or MR362 for the scan:
 - MR370 0 exams, 15 workload units
 - MR361 1 exam, 45 workload units
 - Total exams = 1
 - Total workload = 15 + 45
6. Post processing reconstruction (PPR) times are highly variable for MRI. Use code MR105 (counted in 10-minute increments) to capture all post processing reconstruction workload for MRI. Collecting this workload is not dependent upon the physician's speciality (e.g., PPR can be requested by the radiologist, neurologist or other physician), provided the PPR is performed by unit-producing personnel. Whenever the images are reconstructed through computer automation with no hands-on technical intervention, additional workload units for post processing reconstruction are not captured as unit-producing personnel hands-on time is not involved.

7. Please see Items for Count for the definition of “exam” in Medical Imaging WMS.
8. Average number of sequences, including localizer image, per MR imaging exam is 4. For all MRI exams where more than 4 sequences are required, count additional workload using code MR110 and zero extra exam count.

***NL note: When NL dictionary was implemented, the base for WLU calculation for all MRI exams included 4 or more sequences; therefore MR110 is not applicable.**

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
MR001	Attempted Head and General MRI	N/A	60	1
MR002	Attempted Body	N/A	65	1
MR003	Attempted Extremity	N/A	60	1
MR004	Attempted biopsy	N/A	30	1
MR105	MRI post processing reconstruction, when performed by UPP Count once per increment of 10-minute periods. Do not also count workload for code MI950A.	10	10 (via drop down menu)	0
MR110	Additional sequence beyond 4 per MRI exam: count once per additional sequence.	5	N/A in NL See #8 above	0
MR200	Head without contrast <i>Replaced with CIHI code MR212 in 2019</i>	N/A	50	1
MR202	Head with and without contrast <i>Replaced with CIHI code MR214 in 2019</i>	N/A	60	1
MR203	Pituitary fossa with and without contrast <i>NL adopted CIHI code MR207 in 2019</i>	N/A	60	
MR205	Brain orbits, posterior fossa, internal auditory canal nerves (IAC), and pituitary gland including sella turcica, non-enhanced May include OR planning activity.	30	45	1
MR206	Brain orbits, posterior fossa, internal auditory canal nerves (IAC), and pituitary gland including sella turcica, enhanced May include OR planning activity.	35	35	1

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
MR207	Brain orbits, posterior fossa, internal auditory canal nerves (IAC), and pituitary gland including sella turcica, non-enhanced and enhanced May include OR planning activity. <i>(Replaces MR203)</i>	40	80	1
MR208	Sinus(es) - maxillary, frontal, ethmoid, sphenoid	30	Not used in dictionary	1
MR209	Head including brain, cerebral vasculature, cranial nerves and other soft tissues, cranial bones, joints and all other intracranial structures deleted 2019	60	Not used in dictionary see MR 200 and MR202	1
MR210	Cranial Nerves, non-enhanced and enhanced thin slices- Includes the first 6 sequences. Performed in addition to Brain.	30	Not used in dictionary	1
MR212	Head including brain, cerebral vasculature, cranial nerves and other soft tissues, cranial bones, and all other intracranial structures, non-enhanced <i>(Replaces MR200)</i>	45	50	1
MR213	Head including brain, cerebral vasculature, cranial nerves and other soft tissues, cranial bones, and all other intracranial structures, enhanced <i>(to be used in place of MR202)</i>	60	60	1
MR214	Head including brain, cerebral vasculature, cranial nerves and other soft tissues, cranial bones, and all other intracranial structures, non-enhanced and enhanced combined <i>(Replaces MR202)</i>	75	75	1
MR215	Functional MRI	60	Not used in dictionary	1

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
MR220	Temporomandibular joints (TMJ), non-enhanced	30	50	1
MR221	Temporomandibular joints (TMJ), enhanced	35	65	1
MR222	Temporomandibular joints (TMJ), non-enhanced & enhanced combined	40	75	1
MR230	Neck, soft tissue, nasopharynx non-enhanced	30	60	1
MR231	Neck, soft tissue, nasopharynx enhanced	35	Not used in dictionary	1
MR232	Neck, soft tissue, nasopharynx non-enhanced & enhanced combined	40	90	1
MR240	MR Spectroscopy	20	Not used in dictionary	1
MR250	Brachial Plexus, non-enhanced	40	60	1
MR251	Brachial Plexus, enhanced	45	Not used in dictionary	1
MR252	Brachial Plexus, non-enhanced & enhanced combined	50	80	1
MR260	Cervical spine, non-enhanced	30	40	1
MR261	Cervical spine, enhanced	35	Not used in dictionary	1
MR262	Cervical spine, non-enhanced & enhanced combined	40	60	1
MR270	Thoracic spine, non-enhanced	30	40	1
MR271	Thoracic spine, enhanced	35	Not used in dictionary	1
MR272	Thoracic spine, non-enhanced & enhanced combined	40	60	1
MR280	Lumbar spine, non-enhanced	30	40	1
MR281	Lumbar spine, enhanced	35	Not used in dictionary	1
MR282	Lumbar spine, non enhanced & enhanced combined	40	60	1

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
MR285	Two areas of the Spine, non-enhanced	45	60	1
MR286	Two areas of the Spine, enhanced	50	Not used in dictionary	1
MR287	Two areas of the Spine, non-enhanced & enhanced combined	55	90	1
MR290	Three areas of the Spine, non-enhanced	60	80	1
MR291	Three areas of the Spine, enhanced	65	Not used in dictionary	1
MR292	Three areas of the Spine, non-enhanced & enhanced combined	70	120	1
MR300	Breast non-enhanced (unilateral or bilateral)	40	50	1
MR301	Breast enhanced (unilateral or bilateral)	45	Not used in dictionary	1
MR302	Breast, non-enhanced and enhanced combined (unilateral or bilateral)	50	70	1
MR310	Cardiac, gated, non enhanced	35	60	
MR311	Cardiac, gated, enhanced	60	100	1
MR312	Cardiac, gated, non enhanced & enhanced combined	80	100	1
MR320	Cardiac, stress Includes only the time required by the MRT to prepare the service recipient, administration of the medication (if applicable) and the application of additional pulses required. Use MR310-MR312 for the actual scanning. See special instruction #3.	20	Not used in dictionary	1
MR329	Abdomen magnetic resonance cholangiopancreatography	N/A	60	1
MR330	Abdomen, non-enhanced Includes intra-abdominal organs (e.g., MR Enterography)	35	50	1

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
MR331	Abdomen, enhanced Includes intra-abdominal organs (e.g., MR Enterography)	40	55	1
MR332	Abdomen, non-enhanced & enhanced combined Includes intra-abdominal organs (e.g. MR Enterography)	45	65	1
MR332A	Abdomen With-Without Contrast and Abdomen Magnetic Resonance Cholangiopancreatography (added 2019)	N/A	105	1
MR340	Pelvis, non-enhanced	35	50	1
MR341	Pelvis, enhanced	40	Not used in dictionary	1
MR342	Pelvis, non-enhanced and enhanced combined	60	70	1
MR350	Endorectal or endovaginal technique	15	Not used in dictionary	0
MR360	Any joint or extremity, right or left, non-enhanced. Count a separate exam/unit value if the coil must be changed. For example: a) Digit/Hand, unilateral b) Hand/Wrist, unilateral c) Elbow, unilateral d) Wrist, unilateral e) Forearm, unilateral f) Shoulder/Humerus, unilateral g) Humerus, unilateral h) Knee, unilateral i) Ankle/Foot, unilateral j) Femur, unilateral (and bilateral in NL as coil is not changed) k) Tibia/Fibula, unilateral l) Foot, unilateral m) Hip, unilateral n) Hip, bilateral o) Soft tissue mass of the torso p) Toes	40	50	1

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
MR361	<p>Any joint or extremity, right or left, enhanced. Includes any one of:</p> <p>Count a separate exam/unit value if the coil must be changed. For example:</p> <ul style="list-style-type: none"> a) Digit/Hand, unilateral b) Hand/Wrist, unilateral c) Elbow, unilateral d) Wrist, unilateral e) Forearm, unilateral f) Shoulder/Humerus, unilateral g) Humerus, unilateral h) Knee, unilateral i) Ankle/Foot, unilateral j) Femur, unilateral k) Tibia/Fibula, unilateral l) Foot, unilateral m) Hip, unilateral n) Hip, bilateral o) Soft tissue mass of the torso p) Toes 	45	Not used in dictionary	1
MR362	<p>Any joint or extremity, right or left, non-enhanced & enhanced combined. Includes any one of:</p> <p>Count a separate exam/unit value if the coil must be changed. For example:</p> <ul style="list-style-type: none"> a) Digit/Hand, unilateral b) hand/Wrist, unilateral c) Elbow, unilateral d) Wrist, unilateral e) Forearm, unilateral f) Shoulder/Humerus, unilateral g) Humerus, unilateral h) knee, unilateral i) Ankle/Foot, unilateral j) Femur, unilateral k) Tibia/Fibula, unilateral l) Foot, unilateral m) Hip, unilateral n) Hip, bilateral o) Soft tissue mass of the torso p) Toes 	60	90	1

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
MR365	Proton spectroscopy, includes analysis	25	25	1
MR 370	MR Arthrogram (any joint), when performed by MRT Unit Producing Personnel Includes only the injection of contrast into a joint. Count the scanning of the joint separately (e.g., MR361 or MR362).	15	Not used in dictionary	1
MR380	Chest/thorax, non-enhanced	50	65	1
MR381	Chest/thorax, enhanced	55	Not used in dictionary	1
MR382	Chest/thorax, non-enhanced and enhanced combined	60	90	1
MR400	Fetal MRI, non-enhanced	50	65	1
MR405	Specimen MRI (e.g., fetal demise)	30	Not used in dictionary	1
MR410	MR guided biopsy including guided imaging Includes anatomic imaging. Do not also collect workload for codes GR680, MM225, MM230, IR427, or IR428.	90	130	1
MR420	Intraoperative exam This activity is used when performing an MRI exam in the OR. Do not also count MI910.	25	Not used in dictionary	0
MR425A	MR Angiogram carotid arteries, non-enhanced 2016 revision - replace current MR432 NL code Neck angiogram	35	Not applicable in NL	1
MR426	MR Angiogram carotid arteries, enhanced	42	Not applicable in NL	1
MR427 (next release)	MR Angiogram carotid arteries, non-enhanced and enhanced, combined	50	TBD	1

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
MR429 <i>(next release)</i>	MR Angiogram Neurological (Brain) – non-enhanced Includes post processing time. Do not count MR105 <i>MR429 used for NL</i> See NL codes MR429A & B for Head Venogram	27	30	1
MR429A <i>(next release)</i>	Head Venogram non-enhanced Includes post processing time. Do not count MR105 – NL Code and definition	N/A	30	1
MR429B <i>(next release)</i>	Head Venogram non-enhanced and enhanced, combined Includes post processing time. Do not count - NL Code and definition	N/A	40	1
MR430	MR Angiogram Neurological (Brain) – enhanced Includes post processing time. Do not count MR105	34	Not applicable in NL	1
MR432A <i>(next release)</i>	MR Angiogram Neurological (Brain) – non-enhanced and enhanced, combined Includes post processing time. Do not count MR105	45	45	1
MR432	Neck angiogram (NL added code) See MR425, MR426 and MR427	N/A	70	1
MR434	MR Angiogram Chest/Thorax- non-enhanced	45	Not applicable in NL	1
MR435	MR Angiogram Chest/Thorax - enhanced	50	100	1
MR436 <i>(next release)</i>	MR Angiogram Chest/Thorax– non-enhanced and enhanced, combined	55	60	1

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
MR439 <i>(next release)</i>	MR Angiogram Abdomen- non-enhanced	20	30	1
MR440	MR Angiogram Abdomen - enhanced	25	70	1
MR441 <i>(next release)</i>	MR Angiogram Abdomen– non-enhanced and enhanced, combined	30	45	1
MR444	MR Angiogram Pelvis- non-enhanced	20	Not applicable in NL	1
MR445	MR Angiogram Pelvis – enhanced	25	Not applicable in NL	1
MR446 <i>(next release)</i>	MR Angiogram Pelvis– non-enhanced and enhanced, combined	30	TBD	1
MR449	MR Angiogram Peripheral Upper- non-enhanced	20	60	1
MR450	MR Angiogram Peripheral Upper – enhanced	25	100	1
MR451	MR Angiogram Peripheral Upper– non-enhanced and enhanced, combined	30	100	1
MR454	MR Angiogram Peripheral Lower- non-enhanced	25	60	1
MR455	MR Angiogram Peripheral Lower - enhanced	30	100	1
MR456	MR Angiogram Peripheral Lower– non-enhanced and enhanced, combined	35	100	1
MR460	Magnetoencephalography (MEG) Includes visual evoked field (VEF), somatosensory evoked fields (SEF) or (auditory evoked field) AEF	75	Not used in NL dictionary	1

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
MR465 <i>(next release)</i>	MR Skeletal Survey- non enhanced Includes whole body (e.g., Multiple Myeloma screening)	46	60	1
MR467	MR Skeletal Survey- enhanced Includes whole body (e.g., Multiple Myeloma screening)	65	Not used in NL dictionary	1
MR470	MR Skeletal Survey- non enhanced and enhanced, combined Includes whole body (e.g., Multiple Myeloma screening)	118	Not used in NL dictionary	1
MR475	MRI Soft Tissues- whole body- non-enhanced. Includes post processing time. Do not count MR105	45	90	1
MR477	MRI Soft Tissues- whole body- enhanced. Includes post processing time. Do not count MR105	50	120	1
MR479	MRI Soft Tissues- whole body- non-enhanced and enhanced, combined. Includes post processing time. Do not count MR105	55	120	1

Miscellaneous

General Information and Recording Instructions for Miscellaneous

1. Please see Items for Count for the definition of “exam” in Medical Imaging WMS.
2. For General Radiography, Mammography, Interventional Radiology, Ultrasound, Cardiac Catheterization, MRI and PET/CT modalities, 20 minutes post processing time is integrated into published unit values. To capture workload units greater than 20 minutes, see MI950A* (*MI950 previously referred to additional WLU for Fluoroscopy in NL) for additional post processing workload. If the images are reconstructed through computer automation, with no hands-on technical intervention, additional workload units for post processing reconstruction are not captured as unit-producing personnel hands-on time is not involved.

3. When fluoroscopy time is included in the unit value for an exam in other modalities (except for IR), this is specified within the definition for miscellaneous MI activities. Fluoroscopy is integral to all Interventional Radiography exams; therefore MI955 is not counted along with any IR exam code. For any other exam where fluoroscopy is not specified within the definition, use code MI955.

4. For exams that require IV fluid administration for hydration, prevention of nephrotoxicity or other adverse effects of contrast or for other physiologic requirements such as full bladder, maintenance of cardiac output or fluid challenges or for the administration of other radiopharmaceuticals, additional workload units should be reported under MI980 as service recipient activity, Miscellaneous.

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
MI900	<p>NL defined: Portable - Also include the workload and exam count(s) for the imaging activity (ies) as applicable. Portable in clinical areas (E.g., use for x-ray, ultrasound and CT, OR portable equipment etc.). May also count MI910 for portable imaging in the OR. Do not count waiting time.</p> <p><i>The inability to report both MI900 and MI910 is not accepted in NL</i></p> <p>CIHI 2019 Definition: Portable (use for x-ray, ultrasound and CT). May also count MI910 for portable imaging in the OR. in clinical areas (E.g., use for x-ray, ultrasound and CT, OR portable equipment etc.). Also include the workload and exam count(s) for the imaging activity(ies) as applicable. For portable imaging in the OR, do not count both MI900 + MI910. Do not count waiting time.</p>	15	15	0

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
MI910	<p>NL defined: Preparation to enter operating room or other sterile environment. Count only scrubbing and donning of gown/glove/mask required to enter the sterile environment.</p> <p>For portables on nursing units, do not count workload for both MI900 + MI910.</p> <p>Do not count waiting time.</p> <p>NL will use both MI900 and MI910 in sterile environment.</p>	20	15	0
MI920A	<p>Isolation Includes donning and doffing of personnel protective equipment (gloves, mask, gown) double-bagging biohazardous linen and/or equipment, post exam sanitizing protocols (e.g., using disposable wipes) of imaging equipment or MI suite and hand washing. For scenarios where there are two unit-producing personnel who are performing an exam with an isolation patient (e.g., Where one "clean" UPP is working with the equipment, and one "dirty" UPP is directly interacting with the patient (e.g., performing injections and positioning, manipulations etc.); each UPP will collect workload and zero exams for MI920A the isolation procedures however only one UPP also counts workload for the medical imaging exam itself.</p> <p>Note: waiting time is not counted. If an imaging room requires a 30–60-minute downtime interval for sanitizing following an airborne-isolation patient’s exam, the MRT does not count this as workload.</p> <p><i>MI920 deprecated in 2019, retained in NL as MI920A captured through dropdown menu</i></p>	10	10 via drop down menu	0

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
MI921	Addressing an unexpected patient reaction (e.g., fainting, anaphylaxis, cardiac arrest) Accepted August 14, 2019	Actual or Standard Time	15 WLU increments via drop down menu	0
MI930	Conscious Sedation (Adult) This includes recovery post anaesthesia and respiratory anaesthesiologist set up.	10	10 WLU captured through dropdown menu	0
MI931	Conscious Sedation (Child) Includes recovery time post anaesthesia.	20	20 WLU captured through dropdown menu	0
MI935	General Anesthetic (Adult and Child) Includes recovery time post-anaesthesia.	30	30 WLU captured through dropdown menu	0
MI940	Immobilization- no specialized equipment required. Excludes MI941.	5	5 WLU captured through dropdown menu	0
MI941	Pediatric immobilization- using specialized equipment (E.g., Pigg-O-Stat® Immobilizer/Positioner). Excludes MI940.	15	15 WLU captured through dropdown menu	0
MI945	Service recipient lift and/or transfer with manual, hydraulic or power lift mechanical devices (e.g., Hoyer Lift®) onto and/or off of medical imaging equipment.	10	10 WLU captured through dropdown menu	0

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
MI950A	<p>Post processing reconstruction – additional workload in excess of the 20 workload units specified for the component activities of each modality. (E.g., for General Radiography, Mammography, Interventional Radiology Ultrasound, Cardiac Catheterization PET/CT or 30 minutes for Nuclear Medicine only.)</p> <p>Count once per 10-minute period in increments. If ≥5 minutes, may round up to 10 and if 4 or less, may round down. Count only if performed by Unit-producing personnel.</p> <p>Excludes images reconstructed through computer automation with no hands-on technical intervention.</p> <p><i>“A” = post processing (MI950 previously used to reflect Fluoro (now MI955))</i></p>	10	20 WLU captured through dropdown menu	0
MI950	<p>Fluoroscopy remains in NL schedule in increments of 10 minutes. Application in dictionary may be X2 or 3 (this applies to WLUs only). See MI955</p>	NA	10	1
MI955	<p>Fluoroscopy (added to CIHI schedule in 2013 as MI950 was deprecated). Count once per 10-minute period, in increments. If ≥5 minutes, may round up to 10 and if 4 or less, may round down.</p> <p>Excludes all Interventional Radiology exams; since IR exams include all fluoroscopy time in the published unit values.</p> <p>If MI955 is performed in the absence of any other exam, count 1 exam.</p>	10 10	10 10	0 1
MI960	<p>Tomography.</p> <p>When performed in the absence of any other exam, count 1 exam count</p>	Actual Time	TBD	0 1

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
MI970 <i>(next release)</i>	<p>Counselling- extended Note: routine counselling activities such as providing education and preparation instructions are component activities that are integral to every medical imaging exam. Code MI970 is intended for collecting workload for unusually extended counselling activities. (E.g., nervous parents of an infant or nuclear medicine therapy might more than usual explanation time for the average service recipient). See code MM250 for complex counselling associated with Breast Navigator role in Mammography Functional Centre only. Do not count code MM250 if collecting workload for MI970.</p>	20	20 <i>WLU increased from 15 in 2016 – to be changed in all dictionary combination for next release</i>	0
MI980	<p>IV fluid administration for exams that require IV fluids for hydration, prevention of nephrotoxicity or other adverse effects of contrast or for other physiologic requirements such as full bladder, maintenance of cardiac output or fluid challenges or for the administration of other radiopharmaceuticals, additional workload units should be reported under MI980 as service recipient activity, Miscellaneous</p> <p>Count once per 15-minute period, in increments.</p> <p>Maintaining a pre-existing IV infusion, (i.e. IV fluids are not required for the purposes of carrying out a medical imaging exam or managing associated sequelae) is considered to be a component activity and the workload is included in an exam’s unit values.</p>	15	15 WLU captured through dropdown menu	0

Non-Service Recipient Activities

The NSR activities section of this schedule of unit values has not been reviewed to date by the Provincial MIS PACS Administration group. NSR activity discussion will take place when all MI dictionaries are implemented in the RHAs.

Non-service recipient activities are unit-producing personnel activities that are integral to the functional centre's operations, but do not involve the delivery of services to service recipients. There are four non-service recipient activity workload categories—functional centre activities, organizational/professional activities, teaching/in-service and research. The following table lists the types of activities that are typically considered non-service recipient activities.

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
Functional Centre Activities				
2205	Functional Centre Management Includes housekeeping/clerical activities; organizing; orienting personnel; recording and calculating workload and other statistical data; non-clinical documentation; compiling data for reports and management purposes; management activities related to discipline specific activity; development of discipline specific service programs, and participation in quality improvement activities. Includes PACS validation, reviewing systems processes.	Actual or Standard Time	TBD	Each Occurrence
2210	Employee Meetings: Includes formal and informal meetings of functional centre staff for the purpose of disseminating and receiving information pertaining to the operation of the functional centre and the organization.	Actual or Standard Time	TBD	Each Occurrence
2215	Caseload Management: Includes prioritization and assignment of service recipients within a caseload.	Actual or Standard Time	TBD	Each Occurrence

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
2220	Maintenance: Includes, but not limited to, activities such as maintaining a safe, tidy environment and activities related to inventory control.	Actual or Standard Time	TBD	Each Occurrence
2225	Maintenance of Equipment: Includes preventative maintenance and repair of processing equipment; preventative maintenance and repair of imaging equipment; routine safety checks, maintenance and cleaning of equipment (e.g., cassettes).	Actual or Standard Time	TBD	Each Activity
2230	Radiopharmaceutical preparation for Generator elution including QC to evaluate, including aluminum ion checks and molybdenum breakthrough. Does not include incubation time (E.g., time from reconstitution to time of use) since waiting time is not counted as workload.	10	TBD	Each Occurrence
2232	Radiopharmaceutical preparation for “Add and shake” kits, colloid without boiling. Does not include incubation time (E.g., time from reconstitution to time of use) since waiting time is not counted as workload.	5	TBD	Each Occurrence
2234	Radiopharmaceutical preparation for “Add and shake” kits, colloid without boiling with particle sizing of macro-aggregates. • MAA particle sizing where performing full counting/sizing of 100 particles • Generalized sizing verification check Does not include incubation time (E.g., time from reconstitution to time of use) since waiting time is not counted as workload.	5 2.5	TBD	Each Occurrence Each Occurrence
2236	Radiopharmaceutical preparation for a cardiolite kit. • Add + Shake Kits (boil) (MIBI) Does not include incubation time (E.g., time from reconstitution to time of use) since waiting time is not counted as workload.	18	TBD	Each Occurrence

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
2238	Radiopharmaceutical preparation for colloid requiring boiling. Includes calculations, preparing injection and administering the radiopharmaceutical. (E.g., Sulfur Colloid, MIBI) Does not include incubation time (E.g., time from reconstitution to time of use) since waiting time is not counted as workload.	18	TBD	Each Occurrence
2240	Radiopharmaceutical preparation for chromatography. Includes column filtration method using Sep-Pak® or strips for MIBI. Does not include incubation time (E.g., time from reconstitution to time of use) since waiting time is not counted as workload. If QC fails and must be repeated, count each attempt separately.	5	TBD	Each Occurrence
2245	Receipt, verification, and stocking of radiopharmaceutical unit doses	15	TBD	Each Occurrence
2250	Quality Management: Includes time spent attending quality management meetings; performing and documenting activities that improve the quality of services delivered commensurate with functional centre policy and industry standards.	Actual or Standard Time	TBD	Each Occurrence
2260	QC activities related to the management of image quality.	Actual or Standard Time	TBD	Per Activity
2262	QC activities related to the management of an occupationally safe environment.	Actual or Standard Time	TBD	Per Activity
2264	QC activities related to the management of a radiation safe environment for service recipients and non-occupationally exposed individuals.	Actual or Standard Time	TBD	Per Activity
2266	QC activities related to equipment testing (i.e. HARP, Acceptance).	Actual or Standard Time	TBD	Per Activity
2268	QC activities related to the management of maintaining an image quality in an electronic environment (i.e. PACS).	Actual or Standard Time	TBD	Per Activity

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
2270	QC related to Radiation Protection Officer (RPO) and Radiation Safety Officer (RSO) activities.	Actual or Standard Time	TBD	Per Activity
2272	QC of gamma counter.	Actual or Standard Time Per Camera	TBD	Per Day
2274	QC of radiopharmaceuticals.	Actual or Standard Time	TBD	Per Day
2276	QC activities related to lab monitoring.	Actual or Standard Time	TBD	Per Week
2278	QC activities pertaining to collimator changes.	Actual or Standard Time Per Camera	TBD	Per Day
2280	Travel: Includes internal and external travel associated with the functional centre activities listed above as well as travel associated with the provision of services to specific service recipients within the organization or in their home. Also includes portering of service recipients when performed by functional centre staff.	Actual or Standard Time	TBD	Each Round Trip
2286	Copy/Digitizing Images	10	TBD	Per Exam
Organizational/Professional Activities				
2305	Board/Committee Functions Activities performed during worked hours relating to the preparation, attendance and follow-up of health service organization board/committee functions.	Actual or Standard Time	TBD	Each Occurrence
2310	Program Management activities related to multidisciplinary program(s) and program management activities related to the organization as a whole.	Actual or Standard Time	TBD	Each Occurrence

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
2315	<p>Public Relations</p> <p>Activities directly associated with the public relations function of the health service organization.</p> <p>Includes, but not limited to, planning, meetings and participation in the event, e.g., Media interviews, information programs, preparing articles.</p>	Actual or Standard Time	TBD	Each Occurrence
2320	<p>Advocacy-Professional Activities</p> <p>Includes services provided to the professional, scientific and local communities, agencies and service groups during worked hours.</p>	Actual or Standard Time	TBD	Each Occurrence
2325	<p>Travel</p> <p>Includes any travel associated with organizational/professional activities.</p>	Actual or Standard Time	TBD	Each Round Trip
Teaching/In-Service				
2405	<p>Teaching of students</p> <p>Activities associated with the preparation, orientation, instruction, supervision and/or evaluation of students either prior to, during, or immediately following their clinical placements.</p> <p>Excluded are service recipient related activities performed during the course of teaching. This type of activity is recorded under the appropriate service recipient activity category.</p>	Actual or Standard Time	TBD	Each Occurrence
2410	<p>Teaching of professionals</p> <p>Activities involved in the preparation, orientation, presentation and/or instruction of health service organization personnel.</p>	Actual or Standard Time	TBD	Each Occurrence

Code	Exam Name/Description	CIHI Unit Values	NL Unit Values	Exam Count
2415	Academic teaching Activities involved in the preparation and presentation of course/lecture material to students, evaluation of students as part of their academic curriculum.	Actual or Standard Time	TBD	Each Occurrence
2420	In-service education Includes receiving brief, usually in-house educational information presented by health service organization staff, orientation to new procedures or equipment, grand rounds, and reading of professional articles, journals and books.	Actual or Standard Time	TBD	Each Occurrence
2425	Travel Includes any travel associated with teaching/in-service activities.	Actual or Standard Time	TBD	Each Round Trip
Research				
2505	Research Project Formally designed and approved clinical investigations directed toward advancing knowledge in the field of health, and delivery of health services using recognized methodologies and procedures. All activities performed during worked hours such as reviewing previous research, writing research proposals, compiling and analyzing data and report writing are included. Excluded are service recipient activities, which are provided as part of the research program. These activities are recorded in the appropriate category under service recipient activities.	Actual or Standard Time	TBD	Each Occurrence
2510	Travel Includes any internal or external travel associated with research activities.	Actual or Standard Time	TBD	Each Round Trip

