
Medical Imaging

Schedule of Unit Values

Note: Before reviewing the Schedule of Unit Values for Medical Imaging, the entire WMS document should be read.

Introduction

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 a 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 numonic 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 statistics 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 numbers 1 07 ** - Workload Units - Service Recipient Activities - Diagnostic/Therapeutic, 1 90 ** - Workload Unit - Non-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. In order 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 in order 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 of the technologists that are 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). 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.

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 Request Form ([Click here for the 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 an 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

For the purposes of recording 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.

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 or 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 hours 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 particular exam and an equivalent exam is not

already listed in the modality and also 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 that 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 particular 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 don gown/mask or glove etc., set-up equipment, etc, 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 don gown/mask or glove etc., set-up equipment, or to clean the imaging equipment/suite post exam, etc, the additional workload units are recorded using code MI920.

• **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 are relatively few; therefore the net effect on the average time is not material and the workload units are calculated accordingly.

- **Preliminary or Delayed Images**

No extra workload units are assigned unless specified in the schedule of unit values for that modality. Delayed images are considered to be 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 MI 945, 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 provide assistance 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, 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 designated 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 a zero exam count. 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 IR565 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 Diagnostic/Therapeutic Intervention	Code Series
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
- Vascular Diagnostic – Arterial	IR200-IR299
- Vascular Therapeutic	IR300-IR499

- Non-Vascular Interventional	IR500-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
Positron 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

The detailed schedule of unit values is as follows:

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.

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. See code MI980 for additional workload associated with the provision of IV fluids.
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 that 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.

Ultrasound - Schedule of Unit Values

Code	Exam/Activity	Unit Value	Exam Count
General			
US105	Contrast – additional units for the use of contrast media including microbubbles (agitated saline) or manufactured contrast media.	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	0
Abdominal Ultrasound (Includes Non-obstetrical Pelvis)			
US205	Abdomen, detailed If Quantitative Doppler is included, also count workload for code US110.	35	1
US207	Abdomen and appendix If Quantitative Doppler is included, also count workload for code US110.	30	1
US210	Abdomen, limited (may include a follow-up, single quadrant or a limited number of organs) Includes maternal kidney scan. If Quantitative Doppler is included, also count workload for code US110.	25	1

Code	Exam/Activity	Unit Value	Exam Count
US213	<p>Abdomen and pelvis, limited or preliminary transverse and saggital imaging- no service recipient preparation (e.g. full bladder etc) required</p> <p>May also count workload for obstetrical scanning with codes US405-US460, as applicable.</p> <p>If Quantitative Doppler is included, also count workload for code US110.</p>	15	1
US215	<p>Abdomen and pelvis , detailed</p> <p>May also count workload for obstetrical scanning with codes US405-US460, as applicable.</p> <p>If Quantitative Doppler is included, also count workload for code US110.</p>	50	1
US217	<p>Pelvis and appendix</p> <p>If Quantitative Doppler is included, also count workload for code US110.</p>	30	1
US220	<p>Transabdominal pelvis</p> <p>May also count workload for obstetrical scanning with codes US405-US460, as applicable.</p> <p>If Quantitative Doppler is included, also count workload for code US110.</p>	30	1
US225A	<p>Pelvis, translabial, female</p> <p>May also count workload for obstetrical scanning with codes US405-US460, as applicable.</p> <p>If Quantitative Doppler is included, also count workload for code US110.</p>	25	1
US230	<p>Pelvis, or endovaginal (transvaginal) or transrectal female</p> <p>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.</p>	30	1

Code	Exam/Activity	Unit Value	Exam Count
	If Quantitative Doppler is included, also count workload for code US110.		
US235	<p>Pelvis, transabdominal and endovaginal (transvaginal), female</p> <p>or</p> <p>Pelvis, transabdominal and transrectal, female</p> <p>May also count workload for obstetrical scanning with codes US405-US460, as applicable.</p> <p>If Quantitative Doppler is included, also count workload for code US110.</p>	45	1
US240	<p>Sonohysterography</p> <p>Includes contrast.</p> <p>If Quantitative Doppler is included, also count workload for code US110.</p>	60	1
US245	Prostate/transrectal	30	1
US250	<p>Renal Artery Quantitative Doppler (may be used for post-stents or for renal transplants)</p> <p>If Quantitative Doppler is included, also count workload for code US110.</p>	35	1
US251	<p>Renal Transplant Work-up</p> <p>Includes aorta, iliac arteries and veins for diameter and patency.</p> <p>If Quantitative Doppler is included, also count workload for code US110.</p>	30	1
US255	<p>Transplant Ultrasound, non-hepatic</p> <p>Includes quantitative Doppler</p> <p>When performing abdominal ultrasound with quantitative Doppler for non-transplant purposes, refer to code US110</p>	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,	60	1

Code	Exam/Activity	Unit Value	Exam Count
	MI935, MI940 or MI941, and/or MI970. If Quantitative Doppler is included, also count workload for code US110.		
Echocardiography (Fetal, Neonate, Pediatric/Special Needs, Adult)			
US305	Cardiac, Detailed	55	1
US310	Cardiac, Limited	30	1
US315	Cardiac, Fetal	50	1
US320	Cardiac, Transesophageal	60	1
US325	Stress echo (exercise)	60	1
US330	Stress echo (pharmacological with Persantine)	60	1
US335	Stress echo (pharmacological with Dobutamine)	80	1
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.	45	1
US410	Nuchal Translucency	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	55	1

Code	Exam/Activity	Unit Value	Exam Count
	<p>US210.</p> <p>For multiple gestation, also count US450 once for each additional fetus.</p> <p>If Quantitative Doppler is included, also count workload for code US110.</p>		
US420	<p>Obstetrical Post-16 week-Twins</p> <p>For multiple gestation, also count US450 once for each additional fetus >2.</p> <p>If Quantitative Doppler is included, also count workload for code US110.</p>	90	1
US425	Amniocentesis	45	1
US431	Chorionic villi sampling- ultrasound guidance	50	1
US435	<p>High risk pregnancy</p> <p>(To be used for highly suspicious or known abnormalities).</p> <p>May include biophysical profile.</p> <p>Includes all imaging in routine scan US405 and US415 plus further detailed measurements and cardiac imaging.</p> <p>If Quantitative Doppler is included, also count workload for code US110.</p>	55	
US440	<p>Biophysical profile only (scoring only)</p> <p>(E.g. basic or limited scanning or for recheck < 2 weeks after previous biophysical profile exam. See US441 for more detailed US exam)</p> <p>Count once per fetus</p> <p>If Quantitative Doppler is included, also count workload for code US110.</p>	30	1
US441	<p>Biophysical profile and measurements-detailed</p> <p>Includes detailed scanning and fetal measurements (E.g. head, abdomen, femur) resistive index and fetal heartbeat)</p>	50	1

Code	Exam/Activity	Unit Value	Exam Count
US445	First Trimester - Multiple gestation, additional units per fetus If Quantitative Doppler is included, also count workload for code US110.	25	0
US450	Second/Third Trimester – Multiple gestation, additional units per fetus	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	1
US460	U/S Intrauterine fetal transfusion Includes cordocentesis If Quantitative Doppler is included, also count workload for code US110.	70	1
US465	Umbilical Cord Doppler 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.	TBD	
Ophthalmic Ultrasound			
US505	Ophthalmic, imaging study, unilateral	30	1
US506	Ophthalmic, imaging study, bilateral	35	1
US510	Globe B-scan and Standardized A-scan unilateral	30	1
US511	Orbital B-scan and Standardized A-scan bilateral	60	1

Code	Exam/Activity	Unit Value	Exam Count
US515	Globe immersion B-scan and Standardized A-scan unilateral	30	1
US520	2D High Frequency biomicroscopy immersion anterior segment examination unilateral	30	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	1
US610	Carotid artery, limited (unilateral). If Quantitative Doppler is included, also count workload for code US110.	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	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 and/or MI945. If Quantitative Doppler is included, also count workload for code US110.	35	1
US630	Neonatal brain (Neonate: from birth to 28 days of age) Do not also count US635	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,	28	1

Code	Exam/Activity	Unit Value	Exam Count
	MI940 or MI941, and/or MI970 and/or MI945. Do not also count US630		
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	1
US720	Extremities veins Count once per limb If Quantitative Doppler is included, also count workload for code US110.	30	1
US725	Any other blood vessel (E.g. grafts, arm vein etc) If Quantitative Doppler is included, also count workload for code US110.	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	1
Small Parts Ultrasound (Includes musculoskeletal)			
US805	Neck (thyroid, parathyroid, lymph nodes)	30	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	1
US811	Shoulders, bilateral for image comparison purposes only.	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	1
US821	Other Joints, bilateral for image comparison purposes only.	35	1

Code	Exam/Activity	Unit Value	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 and/or MI945.	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	1
US841	Breast, bilateral for image comparison purposes only. May include 3D	40	1
US850	Ultrasound guided fine wire localization	45	1
US851	Ultrasound guided fine wire localization (breast) - units for second site	20	0
US855	Soft tissue or other small part May include superficial mass, hernia, tendon and/or ligament	25	1
US860	Scrotum/testes with Doppler, quantitative See code NM585 for non-ultrasound testicular imaging.	30	1
US865	Local area/penile frequency analysis with Doppler, quantitative	30	1
Miscellaneous			
US870	Chest	25	1
US875	Spine	25	1

Code	Exam/Activity	Unit Value	Exam Count
	Ultrasound guided catheter or central line placement See Interventional Radiography schedule of unit values to select one of codes IR370, IR371, IR375 or IR380, as applicable.		
US885	Surgical specimen (E.g. breast tissue or for confirmation of tumour margins)	17	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 MI950 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.

Miscellaneous - Schedule of Unit Values

Code	Exam/Activity	Unit Values	Exam Count
MI900	Portable (use for x-ray, ultrasound and CT). May also count MI910 for portable imaging in the OR.	15	0
MI910	Operating Room (excludes MR420) or similar sterile environment. May also count MI900 for portable imaging in the OR.	15	0

Code	Exam/Activity	Unit Values	Exam Count
MI920	<p>Isolation</p> <p>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.</p> <p>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 MI920 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>	17	0
MI930	<p>Conscious Sedation (Adult)</p> <p>This includes recovery post anaesthesia and respiratory anaesthesiologist set up.</p>	10	0
MI931	<p>Conscious Sedation (Child)</p> <p>Includes recovery time post anaesthesia.</p>	20	0
MI935	<p>General Anesthetic (Adult and Child)</p> <p>Includes recovery time post-anaesthesia.</p>	30	0
MI940	<p>Immobilization- no specialized equipment required</p> <p>Excludes MI941.</p>	5	0

Code	Exam/Activity	Unit Values	Exam Count
MI941	<p>Pediatric immobilization- using specialized equipment (E.g. Pigg-O-Stat[®] Immobilizer/Positioner)</p> <p>Excludes MI940.</p>	15	0
MI945	<p>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.</p>	10	0
MI950	<p>Post processing – 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.</p> <p>Count only if performed by Unit-producing personnel.</p> <p>Excludes images reconstructed through computer automation with no hands-on technical intervention.</p>	10	0
MI955	<p>Fluoroscopy</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.</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>	<p>10</p> <p>10</p>	<p>0</p> <p>1</p>

Code	Exam/Activity	Unit Values	Exam Count
MI960	Tomography When performed in the absence of any other exam, count 1 exam count.	Actual Time Actual Time	0 1
MI970	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.	20	0
MI980	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. Count once per 15 minute period, in increments. Note: Do not collect workload for MI980 for exams where the service recipient's IV infusion and/or the IV pump requires no action or attention by unit-producing personnel; this workload has already integrated into the unit value for each exam.	15	0

Non-Service Recipient Activities

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.

Functional Centre Activities

Code	Activity	Unit Values	Item for Count
2205	<p>Functional Centre Management</p> <p>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.</p> <p>Includes PACS validation, reviewing systems processes.</p>	Actual or Standard Time	Each Occurrence
2210	<p>Employee Meetings</p> <p>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.</p>	Actual or Standard Time	Each Occurrence
2215	<p>Caseload Management</p> <p>Includes prioritization and assignment of service recipients within a caseload.</p>	Actual or Standard Time	Each Occurrence
2220	<p>Maintenance</p> <p>Includes, but not limited to, activities such as maintaining a safe, tidy environment and activities related to inventory control.</p>	Actual or Standard Time	Each Occurrence

Code	Activity	Unit Values	Item for Count
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	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	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	Each Occurrence
2234	Radiopharmaceutical preparation for “Add and shake” kits, colloid without boiling with particle sizing of macro-aggregates. <ul style="list-style-type: none"> • 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	Each Occurrence
2236	Radiopharmaceutical preparation for a cardiolite kit. <ul style="list-style-type: none"> • 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	Each Occurrence
2238	Radiopharmaceutical preparation for colloid	18	Each Occurrence

Code	Activity	Unit Values	Item for Count
	<p>requiring boiling.</p> <p>Includes calculations, preparing injection and administering the radiopharmaceutical. (E.g. Sulfur Colloid, MIBI)</p> <p>Does not include incubation time (E.g. time from reconstitution to time of use) since waiting time is not counted as workload.</p>		
2240	<p>Radiopharmaceutical preparation for chromatography.</p> <p>Includes column filtration method using Sep-Pak[®] or strips for MIBI.</p> <p>Does not include incubation time (E.g. time from reconstitution to time of use) since waiting time is not counted as workload.</p> <p>If QC fails and must be repeated, count each attempt separately.</p>	5	Each Occurrence
2245	Receipt, verification, and stocking of radiopharmaceutical unit doses	15	Each Occurrence
2250	<p>Quality Management</p> <p>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.</p>	Actual or Standard Time	Each Occurrence
2260	QC activities related to the management of image quality.	Actual or Standard Time	Per Activity
2262	QC activities related to the management of an occupationally safe environment.	Actual or Standard Time	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	Per Activity
2266	QC activities related to equipment testing (i.e. HARP, Acceptance).	Actual or Standard Time	Per Activity
2268	QC activities related to the management of	Actual or	Per Activity

Code	Activity	Unit Values	Item for Count
	maintaining an image quality in an electronic environment (i.e. PACS).	Standard Time	
2270	QC related to Radiation Protection Officer (RPO) and Radiation Safety Officer (RSO) activities.	Actual or Standard Time	Per Activity
2272	QC of gamma counter.	Actual or Standard Time Per Camera	Per Day
2274	QC of radiopharmaceuticals.	Actual or Standard Time	Per Day
2276	QC activities related to lab monitoring.	Actual or Standard Time	Per Week
2278	QC activities pertaining to collimator changes.	Actual or Standard Time Per Camera	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	Each Round Trip
2286	Copy/Digitizing Images	10	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	Each Occurrence
2310	Program Management Management activities related to multidisciplinary program(s) and program management activities related to the organization as a whole.	Actual or Standard Time	Each Occurrence

Code	Activity	Unit Values	Item for 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	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	Each Occurrence
2325	<p>Travel</p> <p>Includes any travel associated with organizational/professional activities.</p>	Actual or Standard Time	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	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	Each Occurrence
2415	<p>Academic teaching</p> <p>Activities involved in the preparation and presentation of course/lecture material to</p>	Actual or Standard Time	Each Occurrence

Code	Activity	Unit Values	Item for Count
	students, evaluation of students as part of their academic curriculum.		
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	Each Occurrence
2425	Travel Includes any travel associated with teaching/in-service activities.	Actual or Standard Time	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	Each Occurrence
2510	Travel Includes any internal or external travel associated with research activities.	Actual or Standard Time	Each Round Trip

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