Imaging for Clinical Trials at Vanderbilt University Medical Center:
A User’s Manual

Prepared by the Research Imaging Taskforce
Department of Radiology and Radiological Sciences
Vanderbilt University Medical Center

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Research Imaging Taskforce Mission and Membership

The Department of Radiology Research Imaging Taskforce was formed in January 2013. Its mission is to streamline and simplify our workflow, to ensure billing compliance, and to educate Vanderbilt University Medical Center users about our processes.

**Members:**

Richard Abramson, MD - Committee Chair
Rich Pierce - Radiology Chief of Finance and Administration
Jim Patton, PhD - Radiology Finance
   Joe Knutilla - Director
   Sarah Moore - Director
   Carrie McGhee - CT
   Tina Herron - CT
   Ric Andal - MRI
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   Dawn Shone - NM/PET
   Phil Williams - US
   Carol Duong - XR (TVC)
   Chris Kelly - IR
   Brad McKinney - VCH Radiology
   Shannon Bozeman - VHVI Cardiac MRI
   Krista Lewis - Scheduling
   Kim Coleman – VUMC Finance/Charge Integrity
   John Gomillion - VUMC Finance/CTBC
   Gail Bauer - Billing
   Nicky White - Coding
Guide to Imaging for Clinical Trials-Part 1: Study Planning

Radiology resources are available for study design consultation/review

The Department of Radiology and Radiological Sciences has made a broad set of resources available for protocol review and study design consultation.

For consultation on feasibility of scanning protocols please submit a Clinical Trials Radiology Application at Clinical Trials Radiology Support Core iLab website or e-mail radiologysupportcore@vanderbilt.edu.

Beginning in August 2015, all administrative support services offered by the Clinical Trials Radiology Support Core will be associated with fees based on services rendered. Fees will be charged thru the Office of Research iLab system on a monthly basis. Radiology administrative fees associated with clinical trials can be found here Clinical Trials Radiology Support Core iLab website.

For consultation on scientific merit and imaging correlatives, contact Tom Yankeelov, Ph.D., or Richard Abramson, M.D.

Pricing requests for clinical procedures should be submitted through FACTr

Clinical procedure pricing requests should be submitted to VUMC Finance/Clinical Trials Billing Compliance office (CTBC) through FACTr. Please do not submit scan pricing requests to Radiology.

Clinical Trials Radiology Application Process

Clinical Trials Radiology Applications should be submitted as soon as study documents become available, and prior to submission of billing plan. Clinical trials with an imaging component (that will be charged to a D&H account or have special imaging requirements) must be fully vetted by both the Department of Radiology and the Department of Finance/Clinical Trials Billing Compliance office.

Important note for clinical trials with an imaging component: VUMC Finance/CTBC office will not release the D&H number to the clinician until Radiology has completed its full review process.
To submit a clinical trial for Radiology review, please complete an online Clinical Trials Radiology Application by following this link: Clinical Trials Radiology Support Core iLab website.

Incomplete radiology applications will be delayed until all necessary study documents are submitted.

**Type of study information to be included on application:**

- Study title
- Study description
- Sponsor information
- Study arms/aims
- Contact information
- Billing plan number
- Anticipated dates of the study
- Requested imaging procedures
- Special equipment or imaging requirements
- Payer for each procedure at each timepoint/visit

Please attach ALL study documents to the online application (study protocol, imaging guidelines, survey/qualification forms, training requirements, etc.).

Before some Clinical Trials are considered, sponsors may require that specific documentation be submitted to ensure that we have the proper equipment and certifications to perform all of the imaging required. Please attach any sponsor required qualification documents to your Clinical Trials Radiology Application.

Phantom or test-subject imaging will incur a fee. Pricing is dependent on the time required to perform these services, and are typically charged via Form 1180. Please e-mail radiologysupportcore@vanderbilt.edu for more information.

Upon receipt of all study documents, an initial radiology review will be performed. As needed, feedback from individual imaging modalities will be obtained. All study documents will be uploaded to the internal Radiology Research SharePoint site and are reviewed separately by each imaging modality in the study (CT, MR, Nuclear Medicine, etc.) as needed.
The individual imaging modality review process

Completion of sponsor required technical questionnaires/surveys.

Completion of sponsor required training.

Review of study protocol, Image Acquisition Guidelines (IAG), etc. for feasibility.

Discussion of protocol implementation issues as needed with radiologist, study coordinator and trial sponsor.

Phantom or volunteer scanning according to sponsor guidelines for study qualification.

Collaboration with VUMC Finance/CTBC regarding exams that will eventually be listed on the Clinical Trials Radiology Order.

Loading any special (i.e., non-standard of care) imaging protocols onto scanners. In the absence of study-specific image acquisition guidelines, scanning protocols will default to Department of Radiology guidelines. (Please see Appendix C for standard CT scan guidelines for oncology research.)

(Turn-around time for modality review process averages 10 working days.)

Study approval by VUMC Finance/CTBC

After full radiology review is complete and draft versions of radiology research orders have been created, Radiology will request that VUMC Finance/CTBC office perform a radiology coding review via FACTr.

The CTBC office reconciliation process will confirm IRB approval, verify accuracy of procedures and billing codes with comparison to FACTr and billing plan information, with particular attention to payment methods and regulatory compliance.

Researchers must request a D&H account number via FACTr. D&H account can be requested only after the study receives IRB approval.
Researchers request D&H account

A D&H account can be requested only after the study receives IRB approval.

VUMC Finance/CTBC office will submit the D&H account request with the designated Medipac study short name through FACTr to Patient Accounting. The D&H name and account for the clinical trial are then created in Medipac, Epic, and Subject Tracker.

**Important note for clinical trials with an imaging component:** The CTBC office will not release the D&H number to the clinician until Radiology has completed its review process. Once available, CTBC will supply radiology personnel with the D&H number to include in the final radiology research orders.

Clinical Trial Radiology Study Order creation

Based on information from the Clinical Trials Radiology Application, information within the study protocol and imaging guidelines and feedback from Radiology modality review, draft Clinical Trials Radiology Orders will be created by the Radiology Support Core.

After full radiology review and reconciliation with VUMC Finance/CTBC office, the final version of the Clinical Trial Radiology Order will be sent to the research contact person designated on the Clinical Trials Radiology Application. Click here to view an example: Clinical Trials Radiology Order.

These order forms will be used to request any research imaging for the clinical trial. The Clinical Trial Radiology Order contains the study D&H account information, charge codes, and special instructions for the technologists, and is the unifying document that ensures each research scan is performed correctly (i.e., according to the study protocol) and billed appropriately. In the absence of study-specific image acquisition guidelines, scanning protocols will default to Department of Radiology guidelines. Please see Appendix C for standard CT scan guidelines for oncology research.
- Patient signs informed consent for clinical trial

- **Research coordinator completes Research Patient Registration Form in StarPanel**

The Research Patient Registration Form must be completed within 24 hours of the patient signing the informed consent form. It is found in StarPanel under Forms > Global. The Research Patient Registration Form contains the study IRB#, name of investigator, emergency contact info, D&H number, consent date, and off-study information.

- **VUMC Finance/CTBC completes the patient registration process**

The Research Patient Registration Form is automatically forwarded to VUMC Finance/CTBC office for review. CTBC office reviews the form for completeness and also reviews the patient’s Epic accounts.

CTBC office submits an electronic request to Central Registration including instructions to create, update/transfer, or close a patient’s Epic accounts. The primary Epic account for clinical research is a Clinical Trials Account or “1500” account, although research accounts in Epic can also be designated as Third Party or Other.

- **Research coordinator schedules exam**

When scheduling an exam, the research coordinator should notify the scheduler that this is a research patient. The following information should be provided to the radiology scheduling staff:

  - Patient’s MRN, name, and date of birth
  - Requested examination
  - Reason for examination--ICD-9/ICD-10 code
  - D&H number if appropriate
  - Ordering physician name and provider number
  - Patient allergy information
  - Research clinic information
  - Contact person name and number
At the time of scheduling, the research coordinator also ensures that the Clinical Trials Radiology Order has been completed. The Clinical Trials Radiology Order includes specification of whether the exam is to be billed to the study D&H account or to insurance.

D&H code: ICD-9 code V60.9 or ICD-10 code Z75.5

Insurance code: ICD-9 code V70.7 or ICD-10 code Z00.6

**After October 1, 2015, ICD-10 codes will be used exclusively.**

The Clinical Trials Radiology Order must be faxed to Radiology (322-6601) or scanned into StarPanel within 24 hours of scheduling the exam.

Any change in a requested examination requires (a) a phone call to Radiology Scheduling to inform them of the change and (b) a revised Clinical Trials Radiology Order, which must be faxed to Radiology. Radiology Scheduling will then reschedule the examination in Epic.

- **Radiology performs pre-scanning preparation several days before the scan**

Radiology contacts the patient to give any prep information.

Radiology prints labels, and other exam related documents several days prior to the exam.
Guide to Imaging for Clinical Trials-Part 2: Exam completion and Billing

❖ Patient arrives at Radiology check-in

The Clinical Trials Radiology Order is used to link the check-in to the D&H account (if appropriate). The receptionist enters the study D&H account number and exam code into ImageCast as needed.

❖ The radiology technologist performs appropriate study

The Clinical Trials Radiology Order may contain instructions on which scanning protocol to use, specifying use of either standard of care scanning procedures or a sponsor-specific protocol.

❖ The exam is interpreted by a radiologist (unless specified otherwise)

Certain research exams which are designated as “no read” will not be interpreted by a radiologist. The clinical trial “no read” policy will be periodically reviewed by the Department of Radiology and VUMC Finance/CTBC office.

❖ Exams are billed

After the radiologist finalizes the interpretation in ImageCast, charges are created in Medipac and Epic.

Hospital charges are billed through Medipac (Patient Accounting) either to the study D&H account or to the patient’s insurance. D&H Reports are sent to the research department with a form 1180 on the first of every month.

Professional (VMG) charges are billed through EPIC, either to the study D&H account center number (via a form 1180) or to the patient’s insurance.

❖ Billing errors are reviewed by CTBC

VUMC Finance/CTBC office reviews research charges appearing in Subject Tracker and checks for errors, which may include errors in patient registration (e.g., no Research Patient Registration Form in StarPanel, incorrect D&H numbers, incorrect procedure coding, procedures performed that were not listed in the study protocol, etc.). The charge review is captured in FACTr.
Guide to Imaging for Clinical Trials-Part 3: Image Management/Disc Creation

❖ Certain post-scanning image management services are available

Imaging modalities can perform the following special imaging management functions:

- Image de-identification and study re-identification
- Archiving onto CD/DVD
- Completion of transmittal forms (when required)
- Transmittal via FTP (file transfer protocol) to study coordinators or study sponsor (certain modalities only).

To request a de-identified disc for your clinical trial, please complete a Disc Request here: Clinical Trials Radiology Support Core iLab website. If you require that Radiology also complete a transmittal form, please attach the form to your disc request.

❖ Disc creation guidelines:

We ask that all disc requests be submitted as soon as imaging appointments have been arranged. Requests for de-identified discs should be submitted no later than the day before the scan.

Disc creation includes completion of data/image transmittal form if provided to us at time of disc request. Please attach transmittal forms to your disc request.

Incomplete requests will be returned to requestor for completion prior to disc creation.

The study's cost center will be charged a fee for disc creation. Fees will be charged through the Office of Research CORES/iLab system on a monthly basis. Visit Clinical Trials Radiology Support Core iLab website for further information on fees.

Turn-around time for completion of de-identified discs averages 24-72 hours.

Discs for procedures that were not performed at VUH Radiology must be obtained from the performing facility or the film library (phone: 322-0866).
Please note that for image de-identification: Department of Radiology staff will make a reasonable attempt to remove any identifying information (PHI) from imaging studies up to the limits of the various software programs used in the department, which may vary from modality to modality. If further “scrubbing” of DICOM fields is required, researchers must obtain and use their own third-party de-identification software. The Department of Radiology will not utilize third party software to “strip” patient identification information from image data. Radiology will RE-identify data according to sponsor and/or central reader’s guidelines (i.e., adding Study ID #, Site #, timepoint, etc.).

Upon completion of a disc request, the requestor will be notified by Radiology. A representative from your department will need to retrieve the disc (and the transmittal form if requested) from Radiology.

❖ Other image management services:

**The Cancer Imaging Support Lab (CISL) is available to perform data extractions for response assessment**

The Cancer Imaging Support Lab (CISL) offers data extraction by standardized response assessment tools (e.g., RECIST), performed by trained radiologists. This can be performed on a fee-for-service basis or with a radiologist designated as a study co-investigator (the fee is waived in the latter situation). Please contact cancer.imaging@vanderbilt.edu for more information.

CISL Medical Director: Richard Abramson, MD
CISL Administrator: Carrie McGhee
CISL e-mail address: cancer.imaging@vanderbilt.edu
Clinical Trials Radiology Workflow

FAQ - Part 1: BEFORE your study is opened to accrual

Ideally, submission of the clinical trials radiology application will occur as soon as study documents are available. However, at time of billing plan submission, clinical researchers will be asked to identify if their clinical trial includes imaging component, and facility at which imaging will be performed. If our core is selected, the researcher will be directed to Clinical Trials Radiology Support Core website.

From Core website, clinical researcher can review the radiology research processes and resources. The researcher will be directed to submit a clinical trials radiology application, study protocol, imaging guidelines, and survey via iLab website (if they have not already done so).

Radiology coordinator will perform initial review of all study materials. After initial review, Radiology coordinator will upload all study materials to Radiology SharePoint site and assign review to modalities as needed. Radiology coordinator will work with contracts office, CTBC, and clinical researchers regarding any discrepancies.

After full radiology review, Radiology coordinator will upload all study materials to Radiology SharePoint site and assign review to modalities as needed. Radiology coordinator will perform initial review of all imaging exams. Draft research orders will be sent to all modalities for review/approval as needed. Modalities will review/review draft orders and give feedback to Radiology coordinator.

For all clinical trials with a radiology component, CTBC will not release the D&H number to clinical researchers until the radiology vetting process is complete. Upon completion of reconciliation process, CTBC will release D&H to clinical researchers, and to Radiology coordinator.

Radiology coordinator will add approved CPT/CDM codes and D&H number to radiology research orders. Coordinator will send ImageCast coding request to IT, and send final copies of radiology research order to clinical researchers.

After study is open to accrual: The clinical researcher completes Research Patient Registration Form for each patient in StarPanel under Forms/Global.

CTBC Registration Process: 1. Electronic Work-Ques in FACTr. 2. Send Central Registration directions on which studies to place on which EPIC account. 3. Create Clinical Trials account (1500).

Scheduling: Clinical researcher calls Radiology Scheduling and provides MRN, Name, DOB, exam type, D&H, study name and diagnosis, ICD-9/10, ordering MD name/provider number, allergy info, study coordinator contact name/number.

Clinical researcher faxes Radiology research order or uploads into Starpanel w/in 24hrs of scheduling call. If faxed, Radiology PSR scans order into StarPanel. Date and time of exam is established and prep given. At 1-7 days prior to exam: PSR will any supporting documents for day of exam.

Patient arrives at Radiology Check-In. The check-in is linked to the D&H account. Study D&H and Exam Code are entered into ImageCast.

Radiology tech performs appropriate exam according to study protocol. When requested, radiology tech creates a de-identified CD and completes data transmittal form for clinical researcher.

Exam status changes in ImageCast: Complete > Preliminary > Final.

After radiology attending finalizes exam in ImageCast, charges are created in Medipac and EPIC. If an "exception" occurs, a coder will review.

CTBC reviews research charges on error report and Subject Tracker. Charge review captured in FACTr.
How do I obtain research pricing for radiology procedures?
Pricing requests are obtained through FACTr. This website is managed by Clinical Trials Billing Compliance (CTBC) office, a section of VUMC Finance. The CTBC office handles all research imaging price requests for radiology. Please do not submit imaging price requests to Radiology.

My study protocol involves an unusual imaging procedure. How do I know if this examination is available/feasible in our radiology department?
Research liaisons for the various imaging modalities (e.g., CT, MRI, U/S, X-Ray, and Nuclear Medicine, etc.) are available for consultation on feasibility of imaging protocols. The modality research liaisons will consult with radiologists from the various diagnostic sections as necessary for protocol implementation issues. Please e-mail radiologysupportcore@vanderbilt.edu for further assistance.

How do I obtain a Clinical Trials Radiology Order for my trial?
The process begins with submission of a Clinical Trials Radiology Application. Radiology will perform a full review of all study documents and determine exact studies to be performed and create Clinical Trials Radiology Orders for the study. After Radiology review, CTBC office will reconcile Radiology feedback with the billing plan and FACTr info. After the CTBC office reconciliation process, IRB approval, and release of the D&H number; the Clinical Trials Radiology Orders will be finalized and sent to the study coordinator. To submit a Radiology research application click here: Clinical Trials Radiology Support Core iLab website.

Whom do I contact if the sponsor requires pre-study documentation (site survey/imaging capabilities questionnaire, radiology equipment lists, copies of technologist certification or equipment accreditation, phantom/test subject images)?
Before some Clinical Trials are considered, sponsors may require that documentation be submitted to ensure that we have the proper equipment and certifications to perform all of the imaging required. Please attach any sponsor requests to the Clinical Trials Radiology Application. Phantom or test-subject imaging will incur a fee. Click here: Clinical Trials Radiology Support Core iLab website for application submission or to review fees.

What study material from the sponsor do I need to provide to Radiology?
Please attach all study protocols, manuals, imaging guidelines (IAG/IIOM), qualification requirements, and training materials to the Clinical Trials Radiology Application.
FAQ - Part 2: AFTER study is open to accrual

How do I schedule a radiology examination for a research study?

When scheduling an exam, the research coordinator should notify the scheduler that this is a research patient. The following information should be provided:

- Patient’s MRN, name and date of birth
- Requested examination
- Reason for examination (ICD-9/ICD-10 code)
- D&H number (if appropriate)
- Ordering physician name and provider number
- Patient allergy information
- Research clinic information
- Contact person name and number

At the time of scheduling, the research coordinator also ensures that the Clinical Trials Radiology Order has been completed. The Clinical Trials Radiology Order includes specification of whether the exam is to be billed to the study D&H account or to insurance.

D&H code: ICD-9 code V60.9 or ICD-10 code Z75.5

Insurance code: ICD-9 code V70.7 or ICD-10 code Z00.6

After October 1, 2015, ICD-10 codes will be used exclusively.

The Clinical Trials Radiology Order must be faxed to Radiology (322-6601) or scanned into StarPanel within 24 hours of scheduling the exam.

Any change in a requested examination requires (a) a phone call to Radiology Scheduling to inform them of the change and (b) a revised Radiology Research Study Order, which must be faxed to Radiology. Radiology Scheduling will then reschedule the examination in Epic.
Why do I have to use the Clinical Trial Radiology Order? Can’t I just use a regular requisition? Can I make handwritten changes or additions to the Clinical Trial Radiology Order?

The Clinical Trials Radiology Order is carefully created directly from the study protocol and imaging guidelines with input from the VUMC Finance/CTBC office and imaging modality senior technologists. It contains the study D&H account information, charge codes, and special instructions to the technologists. The Clinical Trials Radiology Order is the unifying document that makes sure each research scan is performed correctly (according to the study protocol) and billed appropriately.

Use of the Clinical Trials Radiology Order is mandatory if imaging procedures will be paid for by a D&H Account at any time point in the study or if special imaging protocols are required. No changes can be made to the radiology research order. Only the CTBC office can authorize the use of any order other than the Clinical Trials Radiology Order. Alterations to the Clinical Trials Radiology Order, including handwritten changes, are not allowed. This policy is critical for regulatory compliance.

Please e-mail radiologysupportcore@vanderbilt.edu if any changes to your Clinical Trials Radiology Orders are needed. A new order will be required for any additional research examinations beyond those that were specified in the original Clinical Trials Radiology Order, or if imaging requirements are affected by study and/or imaging guideline amendments or revisions.

We only have one ICD-9/ICD-10 code. Why do we need to select additional ICD-9/ICD-10 codes on the Clinical Trials Radiology Order?

The V60.9 (or Z75.5) and V70.7 (or Z00.6) diagnosis codes are used as secondary diagnosis codes at Vanderbilt to identify that a patient is involved in a research study.

V60.9 or Z75.5 indicates a scan paid for by a research D&H Account, while V70.7 or Z00.6 indicates a routine standard of care scan that will be billed to the patient’s insurance carrier. The secondary V60.9 (or Z75.5) and V70.7 (or Z00.6) codes are used only internally and are not reported externally.
FAQ - Part 3: AFTER imaging has been performed for study
(Image Management)

💡 Who do I contact if I need a de-identified disc on a research patient?

If the scan was not performed at VUH Radiology, please contact that facility directly.

If the scan was performed at VUH Radiology, please complete a Disc Request at Clinical Trials Radiology Support Core iLab website. You will need the following information to submit your request:

- Patient initials
- MRN
- Study Name
- Date of scan
- Type of scan
- Patient Study ID #
- Site #
- Timepoint
- Attach transmittal form (with patient information completed) if required by sponsor

The modality contact will notify you when discs/forms are ready for pick-up, and a representative from your department can pick them up.

💡 What if I need deeper “scrubbing” of patient information from the DICOM record beyond what the Department of Radiology provides?

For image de-identification, the Department of Radiology will make a reasonable attempt to remove identifying information from imaging studies up to the limits of the various software programs used in the Department, which may vary from modality to modality. If further “scrubbing” of DICOM fields is required, researchers must purchase and use their own third-party de-identification software. The Department of Radiology will not utilize third party software to strip patient identification information.
How can data be obtained for electronic transmittal to a "central reader"?

At present, CT and MRI cannot transmit images via FTP (file transfer protocol). If FTP transmittal is required, the referring clinic must obtain a de-identified CD/DVD, which the study coordinator can then use to upload images to the sponsor.

Note: Nuclear Medicine and Ultrasound can send data via FTP (file transfer protocol) to a remote site as long as the site is secure and password driven. Please e-mail radiologysupportcore@vanderbilt.edu for further information.

Can CDs/DVDs of past (back-dated) studies be obtained on demand?

Although we prefer that all discs be requested no later than the day prior to the exam, we understand that sometimes the need arises for CDs/DVDs of past studies. For all back-dated CD/DVD requests, please submit a disc request at Clinical Trials Radiology Support Core iLab website.

Whom do I contact regarding an inquiry from the research sponsor stating that the imaging was not performed according to the study guidelines?

If the scan was performed at VUH Radiology, please contact radiologysupportcore@vanderbilt.edu for assistance in resolving the query.

If imaging was NOT performed at VUH Radiology, please contact that imaging facility directly.
Appendix A: Glossary of Abbreviations and Terminology

CDM – Charge Description Master (hospital billing for technical component charges)

Clinical Trials Radiology Application – A request form from the research coordinator specifying radiology procedures to be obtained as part of the clinical trial. This form can be found on the Clinical Trials Radiology Support Core iLab website.

Clinical Trials Radiology Order – A standardized order form, prepared by the Clinical Trials Radiology Support Core with input from VUMC Finance/CTBC office and the individual Radiology modalities, used by the research team to order any imaging for a particular clinical trial. The Clinical Trials Radiology Order contains the study D&H account information, charge codes, and special instructions for the technologists, and is the unifying document that ensures each research scan is performed correctly (i.e., according to the study protocol) and billed appropriately.


CTBC – Clinical Trials Billing Compliance office, within VUMC Finance

D&H – “Doctors and Hospitals” account, the master billing account associated with each research study

DICOM – Digital Imaging and Communications in Medicine, a standard for handling, storing, transmitting, and viewing medical images

Epic – Billing system for professional charges, also used for scheduling. Also known as “Hyperspace”

FACTr – Financial Accountability and Compliance Tracking for Research, a web-based VUMC Finance/CTBC database for clinical research tracking, including research study discounting and billing

IAG – Image Acquisition Guidelines

ICD-9/10 – International Classification of Diseases, 9\textsuperscript{th} or 10\textsuperscript{th} revision (diagnosis/symptom codes)

ICQ – Imaging Capabilities Questionnaire

IIOM – Investigator Imaging Operations Manual

iLab – Core facility management software utilized by the Office of Research
**ImageCast** – Radiology information and billing system

**IRB** – Institutional Review Board

**Medipac** – Hospital billing system for technical component charges. Some charges cross over into Medipac from Epic.

**MRN** – Medical Record Number

**PBS** – Physician Billing Services (i.e., for VMG professional charges)

**PI** – Principal Investigator

**Radiology Research SharePoint** – An internal document management and collaborative work/discussion platform used to facilitate the clinical trials review process.

**StarPanel** – The VUMC electronic medical record

**Subject Tracker** – VUMC Finance/CTBC charge verification system for clinical research studies

**VCH** – Vanderbilt Children’s Hospital

**VMG** – Vanderbilt Medical Group

**VUIIS** – Vanderbilt University Institute of Imaging Science

**VUH** – Vanderbilt University Hospital

**VUMC** – Vanderbilt University Medical Center
Appendix B: Contacts

VUMC Finance-Clinical Trials Billing Compliance (CTBC)

John Gomillion - Assistant Director, Clinical Trials Billing Compliance
john.w.gomillion@vanderbilt.edu

Kim Coleman - Director of Charge Integrity, Department of Finance
kim.coleman@Vanderbilt.Edu

Radiology scheduling/reception

Main radiology scheduling
Phone: (615)-343-2617

Krista Lewis (scheduling supervisor)
Phone: (615)-343-4272
krista.l.lewis@vanderbilt.edu

Ieshia Smith (reception supervisor)
Phone: (615)-322-5489
inessa.n.smith@vanderbilt.edu

Radiology modalities (technologist liaisons)

❖ Computed tomography (CT)

Carrie McGhee (primary)
Phone: (615)-322-6528
carrie.mcghee@vanderbilt.edu

Katrina Frontz (secondary)
Phone: (615)-322-6528
katinia.d.frontz@vanderbilt.edu

❖ Magnetic Resonance Imaging (MRI)

Matt Herscher (primary)
Phone: (615)-343-4557
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Ric Andal (secondary)
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Nuclear Medicine/Positron Emission Tomography (PET)

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-- VCH Ultrasound:
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  Benny.hopper@vanderbilt.edu

-- VCH Xray & Fluoro:
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  ciji.n.bastin@vanderbilt.edu

-- VCH Interventional Radiology:
  Angela.c.moseley@vanderbilt.edu

**Radiology Fileroom/Image Library**

Shan Boone
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**VMG Physician Billing**

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gail.bauer@vanderbilt.edu
Appendix C: Standard CT scan Guidelines for Oncology Research

For research CT scans on all cancers listed on the next page, please use guidelines from VUH radiologists as listed below.

Sponsor-specific imaging acquisition guidelines or specific scanning techniques that contradict the guidelines listed below should be discussed with radiologist.

For non-oncologic research CT, please defer to Imaging Acquisition Guidelines from sponsor and consult with VUH radiologists.

As a general rule, our department does not usually perform non-contrasted CT scans for cancer research. But, for patients with contra-indication to IV contrast, orders should have option for non-contrasted scans as allowed by sponsor guidelines.

VUH CT scan guidelines for oncology research:

**Body CT (Chest/Abd/Pelvis):**
All CT scans with IV contrast (no “without contrast” scans, unless IV contrast is contra-indicated) per Richard Abramson, MD.

**High-Resolution Chest CT:**
Must be discussed with John Worrell, MD.

**Neuro CT (Head/Neck):**
All CT scans with IV contrast (no “without contrast” scans, unless IV contrast is contra-indicated) per Megan Strother, MD.

**Musculoskeletal/MSK CT (Extremities):**
All CT scans with IV contrast (no “without contrast” scans, unless IV contrast is contra-indicated) per Jake Block, MD.

Please have MSK orders specify:

**Upper extremity:**
Right or Left
Upper arm or forearm or entire upper extremity

**Lower extremity:**
Right or Left
Thigh or lower leg or entire lower extremity
**Included diagnoses:**

**BMT/ Hematology-**
- Leukemia: ALL, AML, CLL, CML
- Lymphoma: Hodgkins and Non-Hodgkins
- Multiple Myeloma
- Myelodysplastic Syndrome
- Sickle Cell Disease

**Head & Neck-**
- Squamous cell,
- Adenocarcinoma
- Adenoid cystic carcinoma
- Mucoepidermoid
- Thyroid

**Breast**

**Gastrointestinal-**
- Colon
- Esophageal
- Gastric
- GIST
- Pancreas
- Biliary
- HCC
- Neuroendocrine
- Carcinoid

**Melanoma**

**Gynecologic-**
- Uterine (endometrial/sarcoma)
- Ovarian (epithelial/peritoneal)
- Fallopian
- Cervical
- Vulvar

**Neuro-Oncology**

**Sarcoma-**
- Bone
- Soft Tissue

**Thoracic-**
- Non Small Cell Lung CA
- Small Cell Lung CA
- Mesothelioma

**Urology-**
- Prostate
- Renal
- Bladder/TCC
- Testicular