

Example

SAFETY AND QUALITY MANUAL

SunnySide Imaging

Example Only

Appendix 2: Example - Safety and Quality Manual

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Governance

This Practice is owned and operated by Mr Brad Waugh.

Australian Public Company, Limited by Guarantee

Registered on 17 January 2004 in the state of Victoria.

ABN: 61 004 381 462

ACN: 004 381 462

Registered office and principal place of business:

14 Gilmore St

Sunnyside, Victoria 3000

Australia

LSPN 009999 registered with the Department of Human Services for Medicare purposes, and accredited with approved accreditor XYZ.

Key Contacts:

Managing Director: Mr Brad Waugh

Medical Director: Dr Jean Smith

Our insurance broker is Watford Insurance Brokers. Certificates of currency are held by the Medical Director including:

- Workers Compensation to the amount required by law,
- \$20,000,000.00 Public Liability, and
- \$10,000,000.00 Professional Indemnity.

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Roles and Responsibilities

Sunnyside Imaging is committed to ensuring staff are qualified and competent to do the work assigned to them.

Only the Medical Director has authorisation to review and modify job descriptions where deemed necessary.

The Administration Manager is named on the LSPN Register as the Authorised Person at this practice. It is the responsibility of the Medical Director to notify the Administration Manager of changes to equipment so that updates can be submitted to Medicare in a timely manner. It is the responsibility of the Administration Manager to ensure that the annual LSPN declaration is completed and returned to Medicare each year by the due date.

Safety and Quality Manual Review Process

The Medical Director carries the ultimate responsibility for Sunnyside Imaging's Safety and Quality Manual and is responsible for reviewing this document once per accreditation cycle. Staff can submit suggestions for improvement at anytime, however only the Medical Director has the authority to develop, approve, implement, maintain and review these policies.

The process will include information pertinent to the policy or procedure under review such as:

- Records in the Quality Improvement Register;
- Staff suggestions;
- Internal audit outcomes; and
- Feedback.

The Medical Director will maintain version control of this document and ensure staff are made aware of all changes prior to such changes being implemented.

The internal audit and review plan ([Attachment 1](#)) schedules the reviews of different aspects of the practice over the four year accreditation cycle to ensure that we cover all parts of the DIAS standards. Sunnyside Imaging uses the checklists in Appendix 1 of the 2015 DIAS User Guide (available on the DoH website) to determine whether the practice meets the requirements for each standard. The checklists are scanned and filed on the practice server, and any tasks or issues arising are recorded in the Quality Improvement Register in the general office for follow-up (print more pages as needed from [here](#)).

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Risk Assessment Procedure

Our Practice has a risk management plan incorporating all aspects of our operations, including:

- Business risks
- Governance risks
- Risks to patients
- Risks to staff

Sunnyside Imaging is committed to ensuring patient safety at all times and maintaining a safe working environment for staff, patients, and visitors. The following process is used to evaluate risks.

Hazard Identification Tool

Hazard Description	Risk Assessed	Control Measure/s	Responsibility	Priority
Radiation Exposure	Moderate	Radiation protection devices lead lining, controlled areas	Chief Radiographer	High
Cross Infection	Moderate	Appropriate cleaning of equipment, hand hygiene and use of disposable items	Medical Director	High
	High	Correctly reprocessing medical devices (disinfecting endocavity transducers)	Medical Director	High
Ergonomics	Moderate	All administration work areas to be ergonomically designed	Administration Manager	Moderate

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Registration and Licensing of Personnel

An area of critical operational risk for this practice is ensuring qualified and credentialed personnel are engaged appropriately. This applies to staff and contractors.

All staff are trained in basic life support procedures (CPR, resuscitation and drug administration), and copies of relevant training or certification is kept in their personnel files.

To ensure that staff and contractors have current registration and/or licensing as required by law, a register is maintained containing copies of registration and licence numbers. This register is reviewed annually by the Administration Manager.

These records are to be kept electronically on the Practice server, and a copy is found in [Attachment 3](#).

1. Radiologist
 - Specialist Medical Registration
 - AHPRA registration
 - Radiation Use Licence from the state radiation regulator (only where the radiologist is operating radiation emitting equipment)
 - DHS Provider Number
 - Medical Indemnity Insurance
2. Radiographer
 - AHPRA Registration
 - Radiation Use Licence from the state radiation regulator
 - Professional Indemnity Insurance
3. Sonographer
 - ASAR Registration
 - Professional Indemnity Insurance

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Radiation Safety and Optimised Radiation Technique Charts

Our approach to the safety of patients and staff is executed by:

1. Use of a Radiation Safety Plan;
2. Maintaining technique charts that are available for each piece of equipment capable of producing ionising radiation;
3. Annual review and authorisation of both manual settings and settings embedded in the imaging equipment software by the Medical Director. The Medical Director may delegate the review to the Chief Radiographer, or other qualified person.
4. Annual comparison in October each year of the Sunnyside Imaging facility reference levels (FRLs) to the published Australian Diagnostic Reference Levels (DRLs) jointly by the Medical Director and Chief Radiographer.
5. Four yearly review of the Radiation Safety Plan by the Chief Radiographer and Medical Director to ensure that the content is current, followed by personnel, and appropriate to the practice at that time.

Radiation Management Plan

Sunnyside Imaging provides a range of services that includes the use of ionising radiation in the delivery of x-ray services.

We are committed to using the minimum radiation doses to make appropriate diagnostic images.

Sunnyside Imaging's Radiation Safety Plan is based on Schedule A of the Radiation Protection Series Guideline for Using Radiation in Medical Imaging – RPS 14. The Radiation Safety Plan is maintained electronically on the practice server, and a hardcopy is in the general office.

[Please note that an example Radiation Safety Plan (RSP) has not been provided with this example Safety and Quality Manual. RSPs are specific to the practice, and requirements vary between jurisdictions. Practices are strongly encouraged to base their own RSP on RPS 14 Schedule A and to consult their state or territory regulator to check additional requirements.]

Technique Charts

Separate technique charts are available for each piece of equipment capable of producing ionising radiation.

Technique charts can be found next to each piece of equipment for quick reference. As Sunnyside Imaging is a digital practice, the exposure index related to radiation dose is included to ensure that over exposure can be monitored. A copy of the Technique Chart is in [Attachment 4](#).

Annual DRL comparisons

Each year in November, the Chief Radiographer is responsible for ensuring that all protocols for Adults and Children (Sunnyside Imaging does not image infants) are entered in the ARPANSA DRL online tool.

When 20 episodes have been entered for a protocol, the report is requested. If less than 20 episodes are run in a year, the report is requested on 30 September based those already entered.

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The Chief Radiographer and Medical Director are responsible for reviewing the reports, and determining whether any optimisation of settings is required.

Any FRLs higher than published DRLs must be justified.

If any equipment is altered, repaired, upgraded or commissioned during the year, a DRL comparison must be performed and reviewed as soon as practicable.

Any actions arising from the comparison process must be recorded in the Quality Improvement Register.

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Diagnostic Imaging Equipment and Servicing

Sunnyside Imaging is committed to quality patient outcomes and understands that equipment performance can have a significant impact on the quality and accuracy of diagnostic reports.

All equipment is registered on the Department of Human Service's Diagnostic Imaging Equipment Register (LSPN Register). This information will be updated as required.

Diagnostic Imaging Equipment Inventory

An inventory is maintained on the practice server, with a copy at [Attachment 5](#) that includes:

- The name of the item with its serial number and manufacturer
- Date of the last service
- Due date for the next planned service

Equipment listed on LSPN 009999

The Administration Manager is responsible for maintaining the practice LSPN.

- Updating DHS (using the LSPN Amendment form) whenever equipment is purchased or retired from use.
- Forwarding copies of all DHS correspondence pertaining to changes to equipment are to be copied to the approved accreditor XYZ.
- Returning annual Location Specific Practice Number Declarations to Medicare.
- Periodically requesting an equipment list from DHS and ensuring that the practice inventory matches the equipment recorded for the LSPN.

Diagnostic Imaging Equipment Servicing

All equipment will be serviced in accordance with the manufacturer's requirements.

All service contracts include the requirement that service agents hold appropriate qualifications and licences, and that copies of the service providers Use License and training records for the equipment being serviced will be provided for our records annually in September.

The date of next service for each item is recorded in the inventory.

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Healthcare Associated Infection

Sunnyside Imaging is committed to maintaining the highest levels of safety for our staff and patients by complying with recognised infection control standards and procedures.

Sunnyside Imaging does not perform interventional procedures.

Our policies for healthcare associated infection are to:

- Ensure the cleanliness of our hands, equipment and examination areas
- For ultrasound, meet the requirements of *TGO 54 Standard for Disinfectants & Sterilants* as directed by the disinfectant manufacturer
- Use single-use items where appropriate, and
- Ensure infectious waste containers are available in each imaging room.

Information about the policies and procedures in practice to reduce the risk of the transmission of infectious agents at Sunnyside Imaging is available in the reception area to all patients.

We ensure that our procedures for hand hygiene and disinfection are followed by scheduling audits annually. Any issues raised in the audits are documented as incidents in the Quality Improvement Register for action.

[Please note that this manual does not include a procedure for disinfection as a practice's procedure will depend on the disinfectant chosen for use.]

Requests for Diagnostic Imaging Services

Diagnostic imaging procedures are only undertaken at Sunnyside Imaging where there is an identified, documented, clinical need and:

- a.) Upon receipt of a signed request from a medical practitioner or a practitioner specified in the Act for the purpose of requesting services of that kind and for which a Medicare benefit is payable; or
- b.) Where the practitioner interpreting the image is permitted to self determine the service for which a Medicare benefit is payable under the Act.

Any request having inadequate clinical details must be discussed with the referrer and further information is to be requested as described below.

Inappropriate requests must be referred to the Medical Director or Chief Radiographer for advice prior to continuing. Inappropriate requests include:

- High risk imaging on pregnant patients;
- Requests with insufficient identification (ie, fewer than 3 identifiers)
- Requests with incorrect identification (ie not the same patient)
- Requests for screening purposes
- Requests for examinations that will not answer the clinical need stated on the request
- Requests without a clinical need recorded

Physicians at Sunnyside Imaging do not self-determine, but may substitute or add services where it is permissible and appropriate to the patient's care.

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Consumer Consent and Information

Information pamphlets are available for the full range of examinations performed at our Practice.

[Insideradiology](#) is also a recommended source of information to our clients.

Sunnyside performs only a few examinations which are considered to be high-risk or invasive. These are trans-vaginal ultrasounds, CT with contrast, and joint injections under ultrasound guidance.

A pre-procedure information sheet is available for each high risk or invasive procedure which describes the procedure to be undertaken and the risks involved. Staff are to go through this information sheet with each patient prior to the examination. The relevant patient history is obtained by staff and recorded on this form, along with the patient's consent to proceed. This form is then scanned into the practice radiology information system (RIS).

If a patient chooses not to proceed with all, or part, of a procedure, this is to be recorded on the request form and the Medical Director informed. The Medical Director will inform the referring practitioner of the patient's decision.

Where procedures of low or no risk are performed, the procedure is to be explained to the patient and their verbal consent to the examination obtained. A "tick box" is selected on the RIS to indicate that verbal consent was received.

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Patient Identification and Procedure Matching

Sunnyside Imaging ensures that all patients are correctly identified when performing a diagnostic imaging examination. A minimum of three (3) patient identifiers are used throughout the entire procedure and are present on all records, including reports, worksheets and images. Patients are also matched with their intended diagnostic imaging procedure, including the anatomical site and side.

All patient identifiers and the intended procedure are confirmed at reception, and then again when presenting to the imaging room.

The following identifiers are approved for use at Sunnyside Imaging

- The patient's full name
- Date of birth
- Home address
- Unique practice identifier

Prior to administration of iodinated contrast, a period of "time out" will be called. Two staff must be present for a "time out" period. They must check the patient's identity, the intended procedure and record that the check was completed.

The "time out" procedure must include confirmation of the following:

- The patient's full name
- Date of birth
- Home address
- The procedure to be undertaken
- The body region/site and side (where relevant)
- That relevant patient history has been collected
- That patient consent has been recorded

The record of time out is to be signed by the two staff members present and scanned into the RIS.

All mismatching events – even those that cause no immediate harm to patients - are considered serious and must be reported immediately to the Medical Director, followed by entering the event in the Quality Improvement Register. Mismatching events can be of several different types, including:

- Incorrect Patient
- Incorrect Examination
- Incorrect Side
- Incorrect information on images
- Near miss

The Medical Director is responsible for investigating the incident, and then designating and implementing corrective actions, which are to be recorded against the entry in the Quality Improvement Register.

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Medication Management

Sunnyside Imaging administers contrast media to patients when required to assist with diagnostic procedures. Emergency drugs are kept for use in the event of any reaction to contrast agents.

Storage, preparation and disposal of medications follow the manufacturer's guidelines:

- IV contrast - stored away from radiation sources and in a low light area
- Barium products - no special requirements
- Buscopan - store between 15 – 30 degrees C
- Atropine - store in a cool dry place under 25 degrees C
- Adrenaline - store in cool dry place under 25 degrees C

Out of date medications are to be returned to the pharmacy next door. Partially used medications are disposed in the labelled waste container which will be collected and destroyed by our waste management contractor.

This Practice complies with the RANZCR guideline for the use of contrast agents.

Some patients may be at an increased risk of adverse contrast reactions. We assure the safety of our patients by asking for, and recording, relevant patient history prior to the administration of any medication.

The following is a list of indicators which are known to increase the risk of adverse contrast reactions:

- Previous moderate or severe reaction to iodinated contrast
- Multiple allergies
- Asthma
- increased risk of contrast induced neuropathy,
- Current drugs which may cause adverse reactions in association with iodinated contrast:
 - Metformin
 - B-adrenergic blockers
- Pregnant patients
- Hyperthyroidism

If a patient at increased risk is identified, the radiologist will re-assess the need for contrast to be given on a case-by-case basis.

Resuscitation equipment must be available at all times when injecting IV contrast.

A medical practitioner must be immediately available to attend to the patient in the event of an emergency or complication of contrast injection.

We closely monitor the patient post contrast administration for up to 30 minutes and longer if deemed necessary.

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Managing Adverse Reactions

In the event of a severe reaction the diagnostic imaging staff are trained to provide a first line response. A second staff member is to call for emergency assistance from the hospital response team or '000' immediately.

The resuscitation trolley is located in the CT scan room on the left hand side of the entry door.

The equipment includes:

- Oxygen / Suction
- Stethoscope
- Sphygmomanometer
- Amby bag and intubation equipment
- Pulse oximeter

Emergency drugs include:

- Adrenaline
- Phenergan
- Hydrocortisone
- Atropine
- Normal saline

All adverse reactions must be recorded in both the Quality Improvement Register and the patient record. Adverse events include, but are not limited to:

- Anaphylaxis
- Extravasation
- Flushing
- Urticaria

Immediately following resolution of the event, an entry in the Quality Improvement Register is to be made by the senior staff member present.

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Diagnostic Imaging Protocols

Sunnyside Imaging has comprehensive examination protocols for the full range of examinations performed at this practice.

Only Radiographers who have successfully completed the in-house CT training module are competent to carry out CT protocols.

All Radiographers employed at Sunnyside are qualified, trained and competent to carry out all general radiography protocols.

All Sonographers employed at Sunnyside are qualified, trained and competent to carry out all ultrasound protocols.

Radiographers and Sonographers must note the 'alerts' at the heading of each protocol, and notify the Medical Director or Chief Radiographer if any alert is present when due to commence imaging, or if an emergency arises during or immediately after the procedure.

Sunnyside Imaging's routine protocols are:

- [Appendix 6](#) – CT
- [Appendix 7](#) – General X-ray
- [Appendix 8](#) – Ultrasound 1
- [Appendix 9](#) – Ultrasound 2

[Please note that a limited selection of example templates is provided.]

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Communication with Requesting Practitioners Policy

Optimal patient management depends on strong communication between Sunnyside Imaging and the referrer. Particular attention is given to urgent or unexpected findings.

Urgent and/or unexpected findings are communicated by the reporting Radiologist personally to the referring practitioner as a matter of urgency. Telephone contact is preferred. If the requesting practitioner is not available, the Radiologist will endeavour to discuss the matter with another practitioner at the practice who has authority to act on the findings. Any such calls and correspondence are documented in the report notes.

Policy for the provision of reports

The provision of appropriate and timely information to referrers is an important aspect to ensuring prompt patient management. The following is included in the final report:

- Referrers name and address
- Date the report is issued
- Date the imaging procedure was performed
- Unique patient details – full name, date of birth, address, practice number
- Clinical details provided by the referrer
- Imaging procedure and modality
- Imaging procedure results including any measurements
- Comparison with any previous relevant images

It is the policy of Sunnyside Imaging policy that reports are not provided directly to the patient, but only to their referring practitioner.

Where feedback from referring practitioners is received regarding the content or provision of reports, the reporting radiologist will communicate directly with the referring practitioner. The feedback, and any resulting actions, is to be logged in the quality improvement register as soon as practicable.

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Feedback and Complaints

Sunnyside Imaging is committed to ensuring the management of feedback and complaints is consistent with the principles of open disclosure and fairness, accessibility, responsiveness, efficiency and integration. Feedback can be:

- Verbal feedback from patients to staff
- Written feedback via the Customer Feedback/Complaints Form, and
- Periodic patient and referrer surveys

All feedback received will be recorded in the Quality Improvement Register, and shall include the actions taken to resolve the issue.

If the complaint is about a matter which can be resolved immediately without reference to others, then the staff member is expected to take the necessary action, which must be recorded in the Quality Improvement Register.

Where the matter cannot be immediately resolved, it will be escalated to the Medical Director.

All staff receive training in managing and responding to feedback and complaints. Records of successful completion of training are retained by the Administration Manager.

Periodic referrer surveys are conducted annually in August to gauge referrer satisfaction with the practice.

Feedback is periodically reviewed and assessed and feeds into our continuous improvement processes.

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Attachment 1 – Review Schedule

Audit Item	Standard	Mar 2016	Jul 2016	Nov 2016	Mar 2017	Jul 2017	Nov 2017	Mar 2018	Jul 2018	Nov 2018	Mar 2019	Jul 2019	Nov 2019
Governance	1.1												
Personnel	1.2												
Radiation Safety	1.3												
Equipment	1.4; 1.5												
Infection Control	1.6												
Requests/Records	2.1												
Informed Consent	2.2												
Patient Identification	2.3												
Medications	2.4												
Protocols	3.1												
Technique Charts	3.2												
Reporting	4.1; 4.2												
Feedback and Complaints	4.3												
Quality Improvement	All												
Vertical Audit-Ultrasound	All												
Vertical Audit-MRI	All												
Vertical Audit- General X-ray	All												
Vertical Audit- CT	All												
Vertical Audit- Nuclear Medicine	All												

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Attachment 2 – Quality Improvement Register

Improvement Action Item (include description of event/issue leading to the identification of improvement area)	Source (eg. Patient, Referrer, etc)	Action Undertaken	Person Responsible for Agreed Action	Completion Date

The current Quality Improvement Register is kept in the general office. Print more pages as required.

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Attachment 3 – Staff Register

Name	Position	AHPRA No	AHPRA expiry	Radiation Licence No	Radiation licence expiry	ASAR No	ASAR expiry	Review date	Next Review date
Dr Jean Smith	Medical Director	MED0058957210	06/11/2016	LX 3602/2005	30/06/2016				
John Smith	Chief Radiographer	MRP0009876543	30/11/2016	LX 4321/2007	15/10/2016	NA	NA	Dec 2014	Dec 2015
Karen Banks	Radiographer	MRP0007810592	19/09/2016	LX 3478/2005	25/09/2016	NA	NA	Dec 2014	
Jane Wright	Sonographer	NMW0014220872	12/05/2016	NA	NA	7825	12/05/2016	Dec 2014	

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Attachment 4 – Technique Chart

EQUIPMENT TYPE:

Shimadzu UD150, Fixed X-ray Room

Examination	Projection	kV	mAs	Distance	Bucky	Exposure Index ¹
Chest	PA	125	4	180	Yes	400
	Lateral	125	10	180	Yes	400
Ribs	Oblique	75	10	100	Yes	400
Shoulder	AP	70	10	100	Yes	400
	Lateral	80	20	100	Yes	400
Humerus	AP	65	7	100	No	400
	Lateral	65	7	100	No	400
Elbow	AP	64	6	100	No	300
	Lateral	66	6	100	No	300
Forearm	AP	62	6	100	No	300
	Lateral	66	6	100	No	300
Wrist	AP	62	3	100	No	250
	Oblique	64	3	100	No	250
	Lateral	66	4	100	No	250
Hand	AP	62	3	100	No	250
	Oblique	64	3	100	No	250
	Lateral	66	3	100	No	250
Finger	AP/Lateral	50	3	100	No	250

¹ For CR/DR systems the dose metric or exposure index will be presented and defined differently for each manufacturer. The common dose metric is the dose to the plate in units of microgray (uGy). For CT the dose metric should be the 'dose length product' (DLP in units of mGy.cm). For interventional fluoroscopy, where available, the dose metric should be the 'dose area product' (DAP in units of Gy.cm²).

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Attachment 5 – Equipment Inventory

Name of Item	Manufacture	Model	Serial Number	Registration Number	Room/Location	Last service date	Next service due
Fixed X-ray	Shimadzu	UD150B-40	150064787	536956	1		
OPG / Ceph	Planmeca	Proline XC	65987	536959	1		
Computed Tomography	GE	Optima CT660	1430988	536958	2		
SPECT/CT	GE	Infinia Hawkeye 4	1409872	536957	3		
Ultrasound	Philips	iU22	3336598	N/A	4		
Transducer	Philips	C5-2	BOJ54K	N/A	4		
Transducer	Philips	L17-5	BUKI2L	N/A	4		

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Attachment 6 – CT Protocol - TOSHIBA AQUILION 16 PROTOCOL

Application: fracture, tumour, cellulitis, sinusitis

Alerts:

1. Request must be protocolled by a radiologist.
2. If the patient is diabetic or over 60 years old renal function tests less than 3 months old must be available for the radiologist to check to ensure it is safe to proceed.
3. Ensure radiologist or a medical practitioner is onsite and available before administering contrast.

Criteria	Protocol Information
Position/Landmark	Head first or feet first-Supine 1cm superior to skull vertex
Topogram Direction	Craniocaudal
Scan Type	Helical
Respiratory Phase	Any
KV / mA / Rotation time (sec)	120kv / Sure Exp (100-450) / .75 sec
Pitch / Speed (mm/rotation)	688:1 , 5.5mm
SD	Standard 6.0
Detector width x Rows = Beam Collimation	.5 x 16 = 8mm
Helical Set Slice Thickness/ Spacing Kernel Recon Destination	body thickness/ recon recon part spacing kernel destination volume thin face .5mm x .3mm FC30 very sharp for multiview 1 - facial bones 3mm x 3mm FC30 very sharp pacs 2 - facial soft tissue 3mm x 3mm FC3 medium smooth pacs
Scan Start / End Locations DFOV	1cm inferior to mandible 1cm superior to frontal sinuses 20 cm decrease appropriately
IV Contrast Volume / Type / Rate	70cc omni 350 2cc/sec (if needed)
Scan Delay	50 seconds
Archiving to MOD	Only thin data will be archived: volume recon
2D/3D Technique Used	Coronal face 3mm x 3mm reformats from volume recon
Images required in PACS	Scouts, 3mm x 3mm sharp axial face/sinus, 3mm x 3mm standard axial face/sinus, 3mm x 3mm sharp coronal face/sinus

Comments: This protocol is the routine for all face, sinus, and orbit studies. The volume is a very thin bone algorithm for reformats. Coronal reformats, 3mm x 3mm, average mode are routine for this protocol. The coronal plane is perpendicular to the hard palate. If the mandible is the primary reason for the face CT scan, then also include sagittal oblique 3mm x 3mm reformats parallel with the mandibular rami

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Attachment 7 – X-ray protocols

Alerts:

1. Unexpected findings – escalate priority reporting.

Chest X-ray (high kV technique):

Alerts:

1. Ensure pregnancy status is checked and recorded prior to imaging.
 - a.) Standard views;
 - PA and Lateral
 - b.) Pneumothorax
 - As above plus PA view on expiration
 - c.) Other views
 - Lordotic View as requested by radiologist
 - d.) For children up to the age of 12
 - PA or AP view is taken then referred to the radiologist for further views as necessary

Ribs (low kV technique):

- PA Chest
- Oblique view of the affected side

Abdominal X-rays:

Alerts:

1. Ensure pregnancy status is checked and recorded prior to imaging.
2. Gonad protection should be used.
 - a.) Obstruction
 - PA Chest to assess for gas under the diaphragm
 - AP abdomen erect and supine (only perform erect view if fluid levels seen in small bowel)
 - b.) Renal Colic
 - KUB plus oblique view of affected side
 - c.) Loaded Colon
 - AP full length supine

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Ankle X-ray:

- AP, oblique and lateral
- For trauma, please include the base of the 5th metatarsal to rule out fracture here

Wrist X-ray:

- PA, oblique and lateral
- Scaphoid view is also required if fracture suspected

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Attachment 8 – Ultrasound Protocols - 1

Alerts:

1. Unexpected findings – escalate priority reporting.

Gall bladder and Common Bile duct

Assess:

- Distension
- GB wall / thickness
- GB lumen
- GB tenderness
- Peri-cholecystic region
- Mobility of calculi when possible

Information to record:

- Longitudinal view of gall bladder body / fundus in oblique or supine
- Longitudinal view of gall bladder neck
- Alternate position with view of gall bladder such as LLD or erect (when possible)
- Bile duct view with intrahepatic measurement.
- Transverse view of body / neck / wall thickness
- Bile duct view with extrahepatic measurement

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Attachment 9 – Ultrasound Protocols - 2

Alerts:

1. Unexpected findings – escalate priority reporting.

Liver and Biliary Tract

Assess:

- Hepatic size
- Hepatic echotexture / echogenicity
- Hepatic contour
- Intrahepatic Biliary tree
- Hepatic vasculature
- Bile duct calibre
- Bile duct lumen
- Peri-hepatic collections / pleural space
- IVC phasicity

Information to record:

- Longitudinal view of lateral segment of the left lobe
- Longitudinal view of the left lobe and caudate lobe and IVC
- Longitudinal view of the porta hepatis
- Longitudinal views of the right lobe and gall bladder
- Longitudinal view of the mid right hepatic lobe
- Longitudinal view of the right lobe and right kidney
- Transverse view of the hepatic veins / IVC
- Transverse view of the portal vein