



# RURAL MEDICAL IMAGING

Locations: Innisfail Mareeba Atherton Ingham

## Optimised Radiation Technique Charts Standard

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# Optimised Radiation Technique Charts

## Purpose and Scope

The purpose of protocol is to ensure our patients exposure to radiation is kept as low as reasonable achievable (ALARA) whilst achieving optimal images for diagnostic purposes.

## Technique Chart

Our Technique Chart consistent with ALARA principles are located at each of our practices

- Exposure Chart 2021. [Exposure Chart 2021](#)<sup>i</sup>
- Exposure Chart Child 2021 [Exposure Chart Child 2021](#)<sup>ii</sup>
- List them if there are any more and send me a copy so that I can attach.

## Settings review

Our protocols and technique charts, embedded settings, dose metric and screening times are reviewed each year in December by our Chief Radiographer.<sup>iii</sup> See [Annual CT review](#) and [Annual Xray Review](#)

## Staff Qualifications

All technical staff performing ionising radiation procedures are required to be a Qualified person and this information is contained in our Staff & Contractors Register as contained in the Safety and Quality Manual<sup>iv</sup> and the register is regularly updated by the Chief Radiographer.

## Document review

This document has been compiled and reviewed in August 2021 whilst reviewing and updating our Safety and Quality Manual and will be reviewed again in June each year in June as per Review Schedule in our Safety & Quality Manual.

Our protocols and technique charts, embedded settings, dose metric and screening times are reviewed each year in December by our Chief Radiographer.

### Technique Chart – Adult

## EXPOSURE CHART - Adult

PROJECTION	kVp	mAs	FFD (cm)	BUCKY (Yes / No)	FOCUS (Fine / Broad)
<b>UPPER EXTREMITIES</b>					
<b>HANDS / WRISTS</b>					
AP / OBLIQUE	50	3.2	100	N	F
LATERAL	54	3.2	100	N	F
<b>FOREARM / ELBOWS</b>					
AP / OBL / LAT	55	4	100	N	F
<b>HUMERUS</b>					
AP / LAT	65	8	100	Y	B
<b>SHOULDER</b>					
AP / INT. & EXT. ROT.	72	10	100	Y	B
LATERAL	80	25	100	Y	B
AXIAL / WESTPOINT	65	6.3	100	N	F
<b>CLAVICLE</b>					
AP / AP 30°↑	72	6.3	100	Y	F
<b>LOWER EXTREMITIES</b>					
<b>TOES / FEET</b>					
AP / OBLIQUES	55	3.2	100	N	F
LATERAL	58	4	100	N	F

Reviewed by O.Sheppard

Date: 08/01/2021

## EXPOSURE CHART - Adult

PROJECTION	kVp	mAs	FFD (cm)	BUCKY (Yes / No)	FOCUS (Fine / Broad)
<b>ANKLES</b>					
AP / OBL / LAT	58	4	100	N	F
<b>TIB/FIB</b>					
AP / LAT	60	4	150	N	B
<b>KNEES</b>					
AP / IC / OBL / LAT	60	4	100	N	F
SKYLINE	70	5	100	N	F
<b>FEMURS</b>					
AP / LAT	72	12	100	Y	B
<b>PELVIC GIRDLE</b>					
<b>PELVIS</b>					
AP	74	32	100	Y	B
JUDET VIEWS	80	32	100	Y	B
<b>HIPS</b>					
AP / LATERAL	74	32	100	Y	B
<b>SYMPHYSIS PUBIS</b>					
20° CEPHALIC	75	32	100	Y	B
30° CAUDAL	75	32	100	Y	B

Reviewed by O.Sheppard

Date: 08/01/2021

## EXPOSURE CHART - Adult

PROJECTION	kVp	mAs	FFD (cm)	BUCKY (Yes / No)	FOCUS (Fine / Broad)
<b>ABDOMEN</b>					
ERECT	75	40	100	Y	B
SUPINE	75	40	100	Y	B
DECUBITUS	70	32	100	GRID	B
<b>SPINES</b>					
<b>CERVICAL SPINE</b>					
LATERAL	78	20	180	Y	B
AP / PEG / OBL	72	6.3	100	Y	B
SWIMMERS LATERAL	85	90	100	Y	B
STEEP OBLIQUES	78	20	180	Y	B
LAT SOFT TISSUE	75	10	180	Y	B
<b>THORACIC SPINE</b>					
AP	74	32	100	Y	B
LATERAL	82	50	100	Y	B
LATERAL (BREATHING)	68	100 mA 1.6 sec	100	Y	F
<b>LUMBAR SPINE</b>					
AP / OBL	78	40	100	Y	B
LATERAL	95	50	100	Y	B

Reviewed by O.Sheppard

Date: 08/01/2021

## EXPOSURE CHART - Adult

PROJECTION	kVp	mAs	FFD (cm)	BUCKY (Yes / No)	FOCUS (Fine / Broad)
L5-S1 (SPOT)	105	64	100	Y	B
<b>SACRUM &amp; COCCYX</b>					
10° CAUDAL	75	32	100	Y	B
25° CEPHALIC	75	32	100	Y	B
SI JOINTS	75	32	100	Y	B
LATERAL	95	64	100	Y	B
<b>SKULL / FACIAL BONES</b>					
PA	74	20	100	Y	B
OM	74	25	100	Y	B
OM (30° CAUDAL)	75	32	100	Y	B
TOWNES	78	40	100	Y	B
LATERAL FACIAL BONES	68	16	100	Y	B
LATERAL SKULL	74	20	100	Y	B
LATERAL NASAL BONES	56	5.0	100	N	F
SMV	85	40	100	Y	B
ZYGOMA	70	12	100	N	F

Reviewed by O.Sheppard

Date: 08/01/2021

## EXPOSURE CHART - Adult

PROJECTION	kVp	mAs	FFD (cm)	BUCKY (Yes / No)	FOCUS (Fine / Broad)
<i>CHEST / THORAX</i>					
PA CHEST	105	3.2	180	Y	B
LAT CHEST	110	15	180	Y	B
AP CHEST (OUT OF BUCKY)	95	6	180	GRID	B
LAT CHEST (OUT OF BUCKY)	105	20	180	GRID	B
PA RIBS	75	20	100	Y	B
PA STERNUM <u>or</u> SC JOINTS	72	16	100	Y	B
LATERAL STERNUM	85	63	100	Y	B

Reviewed by O.Sheppard

Date: 08/01/2021



## Exposure Chart Child

## EXPOSURE CHART

### Child under 10yrs (unless stated otherwise)

PROJECTION	kVp	mAs	FFD (cm)	BUCKY (Yes / No)	FOCUS (Fine / Broad)
<b>UPPER EXTREMITIES</b>					
<b>HANDS / WRISTS</b>					
AP / OBLIQUE	48	2.5	100	N	F
LATERAL	50	2.5	100	N	F
<b>FOREARM / ELBOWS</b>					
AP / OBL / LAT	50	3.2	100	N	F
<b>HUMERUS</b>					
AP / LAT	58	4	100	N	B
<b>SHOULDER</b>					
AP / INT. & EXT. ROT.	60	5	100	N	B
LATERAL	65	10	100	N	B
AXIAL / WESTPOINT	60	4	100	N	F
<b>CLAVICLE</b>					
AP / AP 30°↑	58	4	100	N	F
<b>LOWER EXTREMITIES</b>					
<b>TOES / FEET</b>					
AP / OBLIQUES	48	2.5	100	N	F
LATERAL	52	3.2	100	N	F

Reviewed by O.Sheppard

Date: 08/01/2021

## EXPOSURE CHART

Child under 10yrs (unless stated otherwise)

PROJECTION	kVp	mAs	FFD (cm)	BUCKY (Yes / No)	FOCUS (Fine / Broad)
<b>ANKLES</b>					
AP / OBL / LAT	52	3.2	100	N	F
<b>TIB/FIB</b>					
AP / LAT	55	3.2	150	N	B
<b>KNEES</b>					
AP / IC / OBL / LAT	55	3.2	100	N	F
SKYLINE	60	4	100	N	F
<b>FEMURS</b>					
AP / LAT	60	5	100	N	B
<b>PELVIC GIRDLE</b>					
<b>PELVIS / HIPS</b>					
AP / LAT (<12mths)	55	4	100	N	B
AP / LAT (1 – 4yrs)	60	8	100	N	B
AP / LAT (5 – 10yrs)	68	14	100	Y	B
<b>ABDOMEN</b>					
SUPINE (<12mths)	55	4	100	N	B
SUPINE (1 – 4yrs)	60	8	100	N	B
SUPINE (5 – 10yrs)	68	16	100	Y	B

Reviewed by O.Sheppard

Date: 08/01/2021

## EXPOSURE CHART

Child under 10yrs (unless stated otherwise)

PROJECTION	kVp	mAs	FFD (cm)	BUCKY (Yes / No)	FOCUS (Fine / Broad)
<b>SPINES</b>					
<b>CERVICAL SPINE</b>					
LATERAL	68	10	180	N	B
AP / PEG / OBL	55	4	100	N	B
LAT SOFT TISSUE	60	3.2	100	N	B
<b>THORACIC SPINE</b>					
AP	68	12	100	Y	B
LATERAL	72	20	100	Y	B
<b>LUMBAR SPINE</b>					
AP	68	16	100	Y	B
LATERAL	75	25	100	Y	B

Reviewed by O.Sheppard

Date: 08/01/2021

## EXPOSURE CHART

Child under 10yrs (unless stated otherwise)

PROJECTION	kVp	mAs	FFD (cm)	BUCKY (Yes/No)	FOCUS (Fine / Broad)
<i>SKULL / FACIAL BONES</i>					
AP SUPINE (<12mth)	60	5	100	N	F
AP SUPINE (1 – 3yrs)	65	8	100	N	F
PA (4 – 10yrs)	70	12	100	y	B
OM SUPINE <12mth	60	5	100	N	F
OM SUPINE (1 – 3yrs)	65	8	100	N	F
OM (4 – 10yrs)	70	12	100	Y	B
OM Open Mouth (20° CAUDAL)	70	16	100	Y	B
TOWNES	70	20	100	Y	B
LATERAL FACIAL BONES	68	10	100	Y	B
LATERAL SKULL (<12mths)	55	5	100	N	F
LATERAL SKULL (1 – 4yrs)	60	6	100	N	F
LATERAL SKULL (5 – 10yrs)	70	10	100	Y	B
LATERAL NASAL BONES	52	3.2	100	N	F

Reviewed by O.Sheppard

Date: 08/01/2021

## EXPOSURE CHART

Child under 10yrs (unless stated otherwise)

PROJECTION	kVp	mAs	FFD (cm)	BUCKY (Yes / No)	FOCUS (Fine / Broad)
<i>CHEST / THORAX</i>					
AP CHEST (<12mth) SUPINE	60	2.5	120	N	B
AP CHEST (1 – 2yrs) ERECT/SITTING	70	3.2	180	N	B
AP CHEST (3 – 5yrs) ERECT	80	3.2	180	N	B
AP CHEST (6 – 10yrs) ERECT	90	3.2	180	Y	B
LAT CHEST ERECT (6 – 10yrs)	90	5	180	Y	B
OBLIQUE RIBS	65	8	100	Y	B

## Annual CT review

**Rural Medical Imaging – Innisfail****Annual Review****CT Protocols and DRL review**

Name: Owen Sheppard Title: Chief Radiographer.

I have reviewed the current CT Protocols and performed DRL surveys and note that;

*Tick boxes which apply*

- There are no changes that need to be made to the current CT Protocols  
 I have identified the following changes to be made to CT Protocols:

CT Chest - see below.

CT SOFT TISSUE NECK - now a Dual phase scan.

CT

- All surveyed protocols have DRLs which are in line with Australian National standards  
 The following protocols returned DRLs above Australian National standards and require amendment to exposure parameters to lower dose levels:

CT Chest - apply dose reduction techniques  
(↑ pitch + speed, ↑ Noise index, ↓ kVp, ↓ mA) to  
current protocol.

- I have applied the necessary changes to the CT protocols / exposure parameters.

Signed: 

Date: 24/12/2020

Date of next Annual Review:

24/12/2021

Annual Xray Review

**Rural Medical Imaging – Innisfail**

**Annual Review**

**X-Ray Projection Protocols and Exposure Charts**

Name: Owen Sheppard

Title: Chief Radiographer

I have reviewed the current X-Ray projection protocols and Exposure Charts and note that;

*Tick boxes which apply*

- There are no changes that need to be made to the current X-Ray Projection Protocols
- I have identified the following changes to be made to X-Ray Projection Protocols:

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- There are no changes that need to be made to the current Exposure Charts
- I have identified the following changes to be made to the current Exposure Charts:

Need exposure chart for children.

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- I have applied the necessary changes to the protocols and/or exposure charts.

Signed: 

Date: 08/01/21

Date of next Annual Review:

08/01/22

## Original Files

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- i 3.2 Exposure Chart 2021
- ii 3.2 Exposure Chart Child 2021
- iii 3.2 Annual CT review, 3.2 Annual Xray Review
- iv Safety and Quality Manual