



Australian Government

Australian Radiation Protection and Nuclear Safety Agency

NDRL Newsletter 2014 No. 4

Dear Service users,

Welcome to the fourth NDRL Newsletter for 2014.

We are pleased to announce that the Nuclear Medicine and Image Guided Interventional Procedures surveys were launched during October!!!

Nuclear Medicine and PET Procedures Survey

The ARPANSA Nuclear Medicine Dose Survey will determine reference levels for a number of common nuclear medicine and PET procedures (adult and paediatric), including DRLs for the CT component of multi-modality acquisitions. The survey requires participants to record the activities administered during all imaging procedures within their facility over a four week period. The survey is in the form of an Excel workbook that is simply emailed back to ARPANSA upon completion.

Letters of invitation were sent to all nuclear medicine facilities known to ARPANSA (either directly or via the relevant state regulator) in October. Interested parties can register for the survey by visiting the following website:

<http://www.arpansa.gov.au/services/NDRL/nucmed.cfm>

If you know of any nuclear medicine facilities that did not receive a letter of invitation please let them know of the survey and encourage them to sign up.

For those who have already registered, please note that we have decided to extend the Nuclear Medicine and PET survey period until the end of **May 2015**.

Image Guided Interventional Procedures Survey

The annual number of fluoroscopically guided interventional procedures has grown by about an order of magnitude in the past decade. This has been facilitated by increased clinical skills of the operators, the availability of new medical devices (e.g. stents) and the development of purpose designed interventional fluoroscopic systems. Thus many procedures that previously would have required open surgery or that would not have been possible can be performed using interventional techniques. However, there is little evidence to indicate that total exposure levels are on the decrease in interventional radiology or interventional cardiology. Rather, exposure levels are increasing due to the increased complexity of fluoroscopically guided procedures.

Deterministic radiation injuries following angioplasty, such as that shown in the figure below, have been reported since the early 1990s.

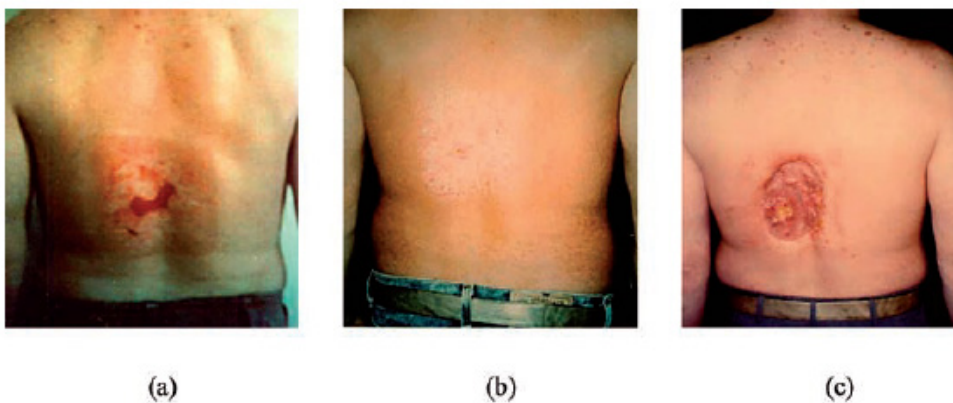


FIG. 1. Time course of a deterministic radiation injury following high dose coronary angioplasty. (a) Two months post-procedure; (b) four to five months post-procedure; (c) 18–21 months post-procedure. Source: US Food and Drug Administration (FDA), Center for Devices and Radiological Health.

“Guidance levels can be applied to practices both between and within hospitals. They may be used to identify practices in a hospital in which patient exposures are higher than the norm and hence where there is the greatest potential for dose reduction.” IAEA SRS No. 59

This ARPANSA IGIP survey will determine diagnostic reference levels for five common interventional and diagnostic angiography fluoroscopy procedures. The five procedures are

1. ‘Normal’ coronary angiogram
2. Cerebral angiogram (1-3 vessels)
3. Cerebral angiogram (4+ vessels)
4. Abdominal angiogram
5. Endoscopic retrograde cholangiopancreatography (ECRP)

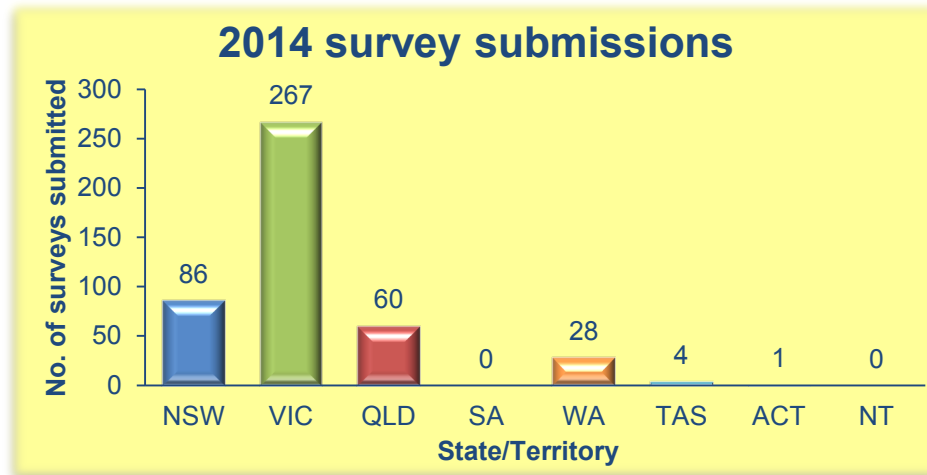
Interested parties can register for the survey by visiting the following website:

<http://www.arpansa.gov.au/services/ndrl/igip.cfm>

Your participation in this work is encouraged.

MDCT Update

As of Nov 26th there were a total of 447 surveys submitted, 415 for the adult age group and 32 for the paediatric age groups. The following graph shows the distribution of survey submissions by state/territory.



NDRLS close off for 2014

We would like to remind you that there are only a few more weeks left of 2014 in which you can finalise your open MDCT surveys.

The closing date for 2014 MDCT surveys is **Jan 4th 2015**, on the morning of Jan 5th the service will be unavailable and all open MDCT surveys will be finalized.

Finalisation means –

- If you have open surveys with between 10 and 20 patients the survey will be closed and you will receive a report
- If you have an open survey with less than 10 patients the surveys will be closed but no report will be generated

We strongly advise that all open MDCT surveys be submitted by Jan 4th 2015.

The service will open again for 2015 data submission on Jan 6th 2015.

Service administrative assistance over the Christmas New Years period

Due to ARPANSA's shutdown over the Christmas/New Year period service administrators will not be available between Dec 23rd 2014 and Jan 4th 2015. This means we will not be able to respond to any queries received or issues with forgotten/expired passwords during this time.

We suggest that if you intend to use the service during this time period you ensure your login details are correct and up to date.

Remember:

- **Completing the surveys can be used as an indication of compliance with the mandatory requirement of RPS 14.**
- **Surveys started this year have until Jan 4th 2015 to be completed!**

[Click here to go directly to the Login page](#)

Regards,

**The NDRLD Team
ARPANSA**

Current Australian National DRLs

Australian Adult (15+ yrs) MDCT DRLs

Protocol	DLP (mGy.cm)	CTDI _{vol} (mGy)
Head	1000	60
Neck	600	30
Chest	450	15
AbdoPelvis	700	15
ChestAbdoPelvis	1200	30
Lumbar Spine	900	40

Australian Child (5-14 yrs) MDCT DRLs

Protocol	DLP (mGy.cm)	CTDI _{vol} (mGy)
Head	600	35
Chest	110	5
AbdoPelvis	390	10

Australian Baby (0-4 yrs) MDCT DRLs

Protocol	DLP (mGy.cm)	CTDI _{vol} (mGy)
Head	470	30
Chest	60	2
AbdoPelvis	170	7

Contact us:

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