Care Quality Commission's Latest IR(ME)R 2017 Report Published

The Care Quality Commission (CQC) has published its latest IR(ME)R 2017 Report which is available at https://www.cqc.org.uk/sites/default/files/IRMER_annual_report_2018_2019_final.pdf

The report outlines the key findings from 1 April 2018 to 31 March 2019 with regard to analysis of incident notifications for 'significant accidental and unintended exposures' ("SAUE"), which replaces the notification of exposures 'much greater than intended'. Guidance for "SAUE" is available at https://www.cqc.org.uk/sites/default/files/20190603_significant_accidental_and_unintended_exposures_guidance.pdf

The number of incident notifications has increased by almost 4%, from 969 notifications in the previous year to 1009 notifications in the April 2018 – March 2019 period.

In diagnostic imaging, there were a total of 796 notifications, comprising 79% of all notifications in 2018/19. The most common type of error stems from referrer error, where the wrong patient receives an exposure. This accounts for 50% of all diagnostic imaging errors. The report explains that this has consistently been the largest source of error in diagnostic imaging for the previous eight years. This is despite the emphasis placed on 'pause and check' procedures for raising awareness of carefully checking patient information prior to imaging.

There were a total of 75 notifications in nuclear medicine, which is an increase of 10% over the previous year. Errors were related to patient identification, failure to cancel redundant examinations and administration of the incorrect radiopharmaceutical. The total number of nuclear medicine notifications has been fairly consistent over recent years, as has the spread of notifications across different sources of error.

In radiotherapy, there were 138 notifications, which is an increase of four notifications over the previous year. Imaging notifications (pre-treatment and verification) in radiotherapy increased, but there was a decrease in treatment notifications from the previous year. The most common errors reported were related to referrals, where a lack of communication and lack of adequate checking contributed, as well as distractions and environmental factors. Indeed noisy and disruptive working environments contributed to pre-treatment and referral errors.

The CQC expects, under the new guidance and notification criteria, to receive fewer notifications, especially from diagnostic imaging, as unintended or accidental exposures are unlikely to reach the reporting criteria. Customers of RPC should continue to report radiation incidents to us in the normal way and we will advise when notification to the CQC is required. We will also give advice on the reporting process and improvements in practice, where necessary.

Want to give feedback to RPC but don't know how?

Clients should note that there is now a quick and easy way to give feedback on the service you have received from RPC. All of our staff now have the following link in their email signature: **www.surveymonkey.co.uk/r/WLPMPZM.** Clicking on the link will allow you to rate the service you have received. RPC is always keen to receive feedback (good or bad) from our clients so that we can continually improve the work we do for you. We look forward to receiving your comments on our services. All feedback is completely anonymous.

Media Services, SGUL Ref – 109443

RPC News

Royal College of Radiologists Publishes New Reporting Standard

The third edition of 'Picture archiving and communication systems (PACS) and guidelines on diagnostic display devices' has been published by The Royal College of Radiologists. This supersedes the second edition.

Diagnostic images can be reviewed in multiple settings, so specific requirements for diagnostic display devices are outlined dependent on whether it is primary diagnostic work, clinical review work or mobile review of radiology images. The guidance sets out the technical specifications for display devices in each setting as well as the viewing environment (e.g. ambient lighting and screen positioning). The guidance also describes the necessary calibration and quality control to be carried out on medical monitors.

Customers should be aware of the new guidance and it should be taken into account where radiologists have an agreement to carry out primary reporting from home. Such an arrangement should be subject to a formal service level agreement. This should normally state the requirement to report from a workstation that meets the latest RCR standards and specify the arrangements for quality control and servicing of the monitor.

The guidance is available on at:

https://www.rcr.ac.uk/system/files/publication/field_publication_files/bfcr192_pacs-diagnostic-display.pdf

Welcome to the latest instalment of RPC News

This edition covers a range of topical issues relating to imaging and radiation protection that we feel may be of interest to you.

If you would like further information on any of the articles, please don't hesitate to get in touch either by e-mail **(info@sghrpc.co.uk)** or by telephone **(020 8725 1050)**.

Best wishes

The Radiological Protection Centre

NHS
St George's University Hospitals
NHS Foundation Trust

THE RADIOLOGICAL PROTECTION CENTRE
Incorporating The John Perry Laboratory

Contents

RPC launches new online radiation protection training course

We are pleased to announce the launch of our third online radiation protection course. The latest course is designed to provide around two hours of radiation protection update training and focuses mainly on the impact of Ionising Radiations Regulations 2017 and the Ionising Radiation (Medical Exposure) Regulations 2017. The course comprises three modules:

1. **IR(ME)R 2017 Regulations: What Do You Need to Know?**
2. **IRR 2017 Regulations and Its Impact on Diagnostic Radiology**
3. **Radiation Incidents Update**

The training is suitable for radiographers, radiologists and any other person involved in diagnostic radiology and can be accessed using the following link: **www.sghrpc.co.uk/moodle**. ***This course is not suitable for those staff who have not had previous radiation protection training.*** Feedback on the training has been very positive so far. Users have found the content interesting and informative, and most subscribers appreciate the concept of having to pass a series of quizzes before being issued with a certificate of completion.

Any person wishing to take the training, who has not already been provided with a username and password, should contact RPC to enrol **(info@sghrpc.co.uk)**, making sure to put 'Moodle training' in the subject field. The training is provided free of charge to RPC's customers.

IPEM Updates Advice on Radiopharmaceutical Excretion Factors

When a radiopharmaceutical is administered to a patient in hospital for diagnostic or therapeutic purposes, some of this will eventually be passed into the sewage drainage system. The proportion that does so will depend on the chemical properties of the radiopharmaceutical and half-life of the radioisotope used. Excretion factors were previously published in the Environment Agency's Radioactive Substance Act Guidance (RASAG) for commonly used radiopharmaceuticals to enable the proportion of the activity excreted to be calculated from the administered activity. These factors are used in the radiological assessment for permit application to derive appropriate limits and demonstrating compliance through the annual reporting of pollution inventory returns to the Environment Agency. Excretion factors were reviewed in 2014 and again in 2018 by the Institute of Physics and Engineering in Medicine (IPEM), British Nuclear Medicine Society (BNMS), Society for Radiological Protection Medical Committee and the Environment Agency. In the 2018 review, it was decided to account for activity excreted by the patient after they leave the hospital. As they are likely to live in the same area as the hospital and share the same sewage treatment works, the excretion factor for some radionuclides was increased, most notably Tc-99m from 30% to 40% and I-131 (thyrotoxicosis) from 50% to 60%. Other changes from the 2018 review are the addition of new radiopharmaceuticals, including I-124 (diagnostic) and Lu-177 PSMA (therapeutic).

It is recommended that these latest excretion factors are adopted by all hospitals for their waste reporting and radiological assessments before the end of 2020.

As before, where a patient has been administered Tc-99m and returns to another hospital after the scan, 30% of the administered dose is attributed to the 'administering hospital' and 10% of administered activity to the hospital to which the patient returns.

It is recommended that these latest excretion factors are adopted by all hospitals for their waste reporting and radiological assessments before the end of 2020.

The full list of excretion factors can be found at:

https://www.ipem.ac.uk/Portals/0/Excretion%20factors%20Sept%202018.pdf?ver=2018-10-03-150031-463

New National Diagnostic Reference Levels available

New and updated National Diagnostic Reference Levels (NDRLs) have been published on the www.gov.uk website.

An update in November 2018 made the following changes: updated values for cervical spine CT and added NDRLs for coronary CT angiography, CT in hybrid imaging (PET-CT, SPECT-CT), screening mammography and radiotherapy planning CT.

The most recent update in August 2019 added an increased range of dental procedures and updated NDRLs for previously-available procedures (adult and child panoramic and adult intra-oral imaging). New NDRLs are now included for child intra-oral, lateral cephalometric and dental CBCT procedures.

The most notable change is that the adult intra-oral NDRL has decreased by 30% and the NDRLs for panoramic procedures have decreased by 15% and 12% for adults and children respectively. This may affect the results of the annual equipment surveys carried out by RPC as the doses we measure are compared to these NDRLs.

RPC's IR(ME)R procedure on DRLs has been updated in line with the new values and the current version can be found at the Dropbox link that has previously been made available to all customers. Customers are advised to check the relevant page on gov.uk from time to time to see if new NDRLs have been published (search "diagnostic reference levels"), although we will continue to endeavour to keep our clients updated of relevant changes via RPC News.

Online radiation protection training for vascular surgeons now available

The NHS e-LfH online learning platform has recently launched a course entitled ***"Radiation Protection for Vascular Surgeons"***. Its stated aim is

> *"to deliver the theoretical knowledge required by the Ionising Radiation (Medical Exposure) Regulations 2017 within the UK, tailored towards the radiation safety of staff, patients and the public from the use of radiation within vascular surgery."*

The course is aimed at both trainees and more experienced vascular surgeons and aims to cover the theoretical knowledge required by practitioners and operators under Schedule 3.

The course covers all topics required by regulations in addition to sections on imaging in vascular surgery and innovations in endovascular surgery. It is divided into 8 sections, with each taking about 30 minutes to complete. The first seven sections contain a 10-question assessment, with a score of 8/10 or more being required to pass. The final section "Taking the Next Step" discusses further actions to be taken to consolidate the learner's knowledge i.e. practical training, a literature review and a clinical audit. RPC's clients who are responsible for ensuring that their vascular surgeons are suitably trained under IR(ME)R 2017 before being granted entitlement as practitioner or operator are advised to bring this training opportunity to their attention. The course is available at **https://www.e-lfh.org.uk/** (search "vascular").