

**UKRG ANNUAL WORKSHOP:
BOURNVILLE 2013
QUALITY SYSTEMS IN
RADIOPHARMACY**

This year's UK Radiopharmacy Annual Workshop was again held at The Beeches Management Centre, Bourneville on 11th Jan. The event started the previous evening with the now traditional sojourn to Yasser's Indian restaurant for an informal evening of food and merriment.

Friday morning started with a full English breakfast and the knowledge that we would be well catered for during the day with unlimited tea and coffee with cookies in the morning and cake after lunch

The first item from Jo Hayes, Quality Control North West was a presentation on **Pharmaceutical Quality Systems – a toolkit for survival**. This gave an insight into the world of quality management in radiopharmacy and how this links in with the new chapter 1 of EU GMP. This was a very interesting talk that gave all of the delegates plenty of food for thought. After a coffee break and a visit to the manufacturers exhibition the speaker's baton was passed to Michelle Green - Quality Manager, Radiopharmacy Department, Sandwell and West Birmingham Hospitals NHS Trust who gave us a look at the **Role of the Quality Manager in the Radiopharmacy Department**, explaining to the delegates how the quality manager could implement the themes presented by Jo in the previous talk.

The next item of the day was from Phil Hillel, Sheffield who in his own words gave him the opportunity to air his dirty laundry in public and went through the steps involved during **A Serious Untoward Incident in the Radiopharmacy**.

William John from the HSE gave us an insight into the **inspection findings from audits on transport regulations** and started his talk with a video showing some of the crash testing of transport containers of various sizes including one container being hit by a speeding diesel locomotive.

After coffee, Helen Hill from Leicester aired some of her dirty laundry and showed how a seemingly non-serious incident can quickly escalate and involve a lot of other parties and produce a large amount of paperwork

This was followed by lunch and as usual it was well received and allowed us to approach the afternoon with renewed vigour.

The afternoon session consisted of workshops and discussion groups. After being split into small teams we were given a sheet with 1 line problems that could be encountered in a radiopharmacy and asked whether the incident should just be recorded or more fully investigated. This prompted some very lively discussion from within each group and even more discussion when the groups met up to discuss the individual team findings. The second half of the afternoon session the small teams were again asked to discuss and work through another radiopharmacy problem and perform a root cause analysis with each group asked to focus on a particular strand of the analysis. This again prompted some lively discussion which took up most of the rest of the afternoon.

Paul Maltby's closing remarks mentioned that we all found the day extremely interesting and provided an invaluable insight into quality management to all radiopharmacies, and gave us all a lot of information to take back to our own radiopharmacy. The day finished with a group photograph which is attached and the promise that we would all meet again next year

Mike Robinson, Cardiff



Conference delegates at this year's Workshop. Is there anyone you know in this picture? Why not plan to attend next year's Workshop in Jan 2014?

Editor's note: The meeting was also an opportunity to wish Alistair Millar a happy retirement from the end of January 2013. The UKRG Committee made a presentation to Alistair (a bottle of rare single malt whisky) to thank him for his contribution to radiopharmacy over very many years.



Alistair enjoying some quality time with a few of the UKRG Committee members!

UKRG INITIATIVES

Critical Impact Assessments

Following the publication of the "QA of Radiopharmaceuticals" document UKRG has received a request for advice about dealing with out-of-limit test results. UKRG has established a Working Group to draft a new guidance document on the "Critical Impact Assessment of Out-of Limit Results". Watch out for details of publication in a forthcoming Newsletter.

Resheathing of needles

UKRG is in contact with a commercial supplier to investigate the marketing opportunities for a needle re-sheathing aid. More news in a future Newsletter.

Stability Data

Some centres have asked for advice about radiopharmaceutical stability, specifically in relation to cold chain validation for week-end deliveries when the product could be out of the fridge for up to 48hrs. UKRG advice is to contact the companies concerned directly for advice about their products; the centre is then responsible for verifying the advice received.

Revision to EU GMP

The European Commission has launched the public consultation of the following revised guidelines on good manufacturing practices:

- Chapter 3 Premises and Equipment
- Chapter 5 Production
- Chapter 6 Quality Control
- Chapter 8 Complaints, Quality Defects and Product Recall

Comments and suggestions are invited by 18 July 2013. For details please see the MHRA website at this URL:

<http://www.mhra.gov.uk/Howweregulate/Medicines/inspectionandstandards/GoodManufacturingPractice/News/CON228757>

To keep up-to-date with changes in EU GMP readers are advised to bookmark this URL:

http://ec.europa.eu/health/documents/eudralex/vol-4/index_en.htm

UNIVERSAL OPERATOR BROTH KITS

The NHS PQAC has issued an advice note about the Universal Operator Broth Kit supplied by Shield Medicare Ltd. The issue concerns the 100ml mini-bags of Tryptone Soya Broth.

Introduction

Because of difficulties in sourcing mini-bags with a long shelf-life, Shield Medicare Ltd is seeking an alternative supplier for the 100ml tryptic soy broth in a bag. As an interim measure, Shield is using 100ml EVA bags of tryptic soy broth from Cherwell Laboratories *Redipor® Prepared Media* range.

An alternative is being evaluated, and both Shield Medicare Ltd and the NHS PQAC are currently waiting for the validation data for this product to be provided by the manufacturer.

Action

All users of the Universal Operator Broth Kit should be aware that the substitute 100ml bags of broth obtained from Cherwell Laboratories are supplied with a non-sterile overwrap. Additionally users should note that these bags have a maximum 3-month-life. As a result Shield Medicare Ltd is only assembling kits on demand, they are not holding stock. The company will prepare a batch of kits once sufficient orders have been received for a full batch run. In reality this means that as little as one month shelf life may actually be available to the end

user. Users will need to take this into account when receiving kits, and ensure they are used within the shelf life of the short dated product.

Please also note that kits should be used at least two weeks before the expiry date so that the broth test would not be invalidated by the bags expiring during the incubation period. In taking appropriate action, it is recommended that the following check list be followed.

- Once removed from its overwrap the 100ml TSB bag should be wiped and sprayed with sterile 70% alcohol prior to transfer to a Grade A zone or surface.
- Carefully plan the date for carrying out the operator broth test and check delivery date and expiry before placing the order.
- Consider completing a process validation to re-qualify staff if a universal operator broth test kit is not available.

NHS PQAC Advice Note

Date of Issue: 31 January 2013

REGULATORY ISSUES

Recent MHRA inspections

During 2012-Q4 three radiopharmacies had received a GMP Inspection during which major points of non-compliance with EU GMP were observed.

- Site A. A radiopharmacy facility. Quality systems were not in place. Customers received product with the wrong labels due to lack of label segregation/reconciliation, and took no action following complaints from customers. There were high numbers of OOS micro results in Grade A workstations and no excursion forms raised or CAPA done. There were issues with the Grade B areas; refurbishment had taken place, but work had recommenced before the facilities had been approved for use, and there had been no involvement with the MHRA
- Site B. A PET Facility. There were similar issue to those mentioned above. Clean room fabric was unsatisfactory. The synthesis cell was classed as Grade C but open-fronted and operating in a Grade D area. There was no sanitisation of materials into the Isolator. HEP filter pressures had been OOS for over a year with no action taken. The QMS was

inadequate, and change control poorly implemented.

- Site C. A newly refurbished facility – there were no Majors, but there was concern about the qualification documentation relating to the refurbishment.

New Products / Withdrawal of Products / Supply Issues

Mo99 supply problems

Covidien/Mallinckrodt (see below) has continued to provide updates on their ability to supply Mo99/Tc99m following the unplanned shutdown for the High Flux Reactor (HFR) in Holland in November 2012. The latest update indicates that the HFR will not come back on stream until at least May 2013. The week beginning 21st April remains a problem with a shortage of Mo99, resulting in standing order generators with a reduced reference activity on Mon-Wed that week, and the Thursday generators delivered a day early with an adjusted pre-calibration. Full details are available from Joanne Pennicott at Mallinckrodt, tel 01329 224444

Stannous Agent

Mediam have announced that they are now able to supply their Stannous Agent (previously marketed as Amersham “Amerscan Stannous Agent”) in the UK. The product Licence is PL 22879/0003. They have set up a UK based company (M-Pharma Ltd) for ordering and invoicing but the deliveries will come from France. For details please contact Franck Rouaix at:

Laboratoire Mediam Pharma

85 rue N. Mandela

F-59120 Loos

Tel : 33 (0)3 20 49 72 58

Fax : 33 (0)3 20 88 16 71

mail : contact@mediam-pharma.com

GE Healthcare Cr-51-EDTA

There have been some supply problems recently with GE Cr-51-EDTA. Whilst for some centres GFR assessments can continue using Tc99m-DTPA, the Cr-51-EDTA problems will have a major impact on clinical trials which require only Cr-51-EDTA to be used. We hope to report positive progress with supply of this product in the next Newsletter.

GE Healthcare withdraws In-111-oxime and In-111-Chloride from European market.

GE Healthcare has just announced that with effect from 1st July 2013 it will cease to supply In-111-Oxime and In-111-Chloride in Europe. The decision has been taken for two reasons: firstly, the diminishing demand for In-111 products in Europe; and secondly, following GE's decision to transfer In-111 manufacturing to the Arlington Heights facility in the US. Full details are available from Steve Forman, Commercial Operations Manager at GE Healthcare (<mailto:steve.forman@ge.com>)

Zevalin

Zevalin is now marketed in the UK by Spectrum Pharmaceuticals. The Spectrum Zevalin SPC has been revised to specify undertaking the RCP with ITLC-SA stationary phase and 0.9% saline mobile phase. (Previously the Bayer SPC specified using ITLC-SG as the stationary phase). UKRG understands that in most separations ITLC-SG and ITLC-SA behave similarly.

HMPAO

Link Medical has announced a distribution arrangement with Mediradiopharma of Hungary for the distribution of Medi-Exametazime (PL 40129/0001) in the UK. For more details contact Peter Dobson at Link Medical (<mailto:peter@linkmed.co.uk>)

DELIVERY ISSUES

UKRG is aware that some centres have experienced delivery delays in the recent past for products that are shipped from continental Europe. This appears to be due to additional rigour by the UK Border Agency in checking consignment manifests, resulting in delays at the ports. Whilst this is commendable from a security perspective it does present a practical problem for radiopharmacies. UKRG advice is to lobby the suppliers; if there is enough concern raised the suppliers may be able to exert some influence with the Authorities.

Nitrogen Filled Vials

Adelphi Healthcare Packaging has been providing sterile nitrogen filled vials to the UK radiopharmacy industry since 1997 and we have now supplied in excess of 1.5 million vials. These vials are CE marked and Adelphi has both ISO 9001 and ISO 13485 (Medical Devices) accreditation



The vials are manufactured from Schott Type I Fiolax tubular glass and supplied internally sterile, particle free, apyrogenic and with a sterile inert nitrogen atmosphere. Vials are usually supplied with a slight internal negative pressure (800-900mbar) to assist with functionality. Each batch is tested for sterility, endotoxins and particulate contamination before release and supplied with a Certificate of Analysis and Release Certificate.

The vials are supplied with a West bromobutyl rubber stopper and West aluminium crimp seal. Adelphi holds stock of both 2mL and 10mL vials with a range of other vial sizes produced to order. The 10mL vials (VNS10RB) are supplied in boxes of 50 vials and can be supplied in quantities from a single box upwards.

If a radiopharmacist has specific requirements then these can often be met. Adelphi has manufactured specialised batches of sterile vials with Schott Type 1 Plus[®] internal glass coating or customer defined rubber stoppers and aluminium crimp seals. We have also supplied a 50mL sterile nitrogen filled vial for bulk filling and subsequent aliquoting of a radiopharmaceutical product.

NB. Full technical details can be obtained from Adelphi at the following;

John Hockley – Quality & Technical Manager
Adelphi Healthcare Packaging, Olympus House,
Mill Green Road, Haywards Heath, West Sussex
RH16 1XQ. Tel: (0)1444 472300

E-mail: sales@adelphi-hp.com

Website: www.adelphi-hp.com

Draximage Medronate (MDP)

The UK distribution arrangement for Draximage MDP are still to be confirmed. Hopefully we can publicise the details in the next Newsletter.

SPC Updates

IBA Elumatic Generator

IBA has announced a revision of the SPC and PIL for the Elumatic-III Tc99m generator (revision date 8th February 2013). The key changes are: notification of possible extravasation reactions from Tc99m-Pertechnetate injections; and the need to store the Pertechnetate eluate at fridge temperature (2-8 °C) and use it within 10 hours of elution. A copy of the update SPC is available from Mike Ward (<mailto:mike.ward@ibamolecular.com>)

GE DaTSCAN ®

GE has announced a revision to the DaTSCAN SPC (revision date 03/2013). The section 4.1 on Therapeutic Indications has been updated to state:

This medicinal product is for diagnostic use only.

DaTSCAN is indicated for detecting loss of functional dopaminergic neuron terminals in the striatum:

- In adult patients with clinically uncertain Parkinsonian Syndromes, for example those with early symptoms, in order to help differentiate Essential Tremor from Parkinsonian Syndromes related to idiopathic Parkinson's Disease, Multiple System Atrophy and Progressive Supranuclear Palsy. DaTSCAN is unable to discriminate between Parkinson's Disease, Multiple System Atrophy and Progressive Supranuclear Palsy.
- In adult patients, to help differentiate probable dementia with Lewy bodies from Alzheimer's disease. DaTSCAN is unable to discriminate between dementia with Lewy bodies and Parkinson's disease dementia.

RADIOPHARMACEUTICAL QUALITY CONTROL TECHNIQUES: THEORY AND PRACTICE

We are pleased to confirm that the next KCL Radiopharmaceutical Quality Control Techniques: Theory and Practice course is to be held in July at our Waterloo Campus. The details are as follows:

Course: Radiopharmaceutical Quality Control Techniques: Theory and Practice
Dates: 15th – 16th July 2013
Venue: Kings College London – Waterloo Campus

Fees: £150 with accommodation , £110 without accommodation

For more information and to apply please visit this URL:

<https://www.kcl.ac.uk/prospectus/shortcourses/index/name/b4gxr7w1radiopharmaceutical-quality-control-techniquescolon-theory-and-practice/keyword/medicine>

UPCOMING MEETINGS

2013

51st Annual Congress of the German Society of Nuclear Medicine

17-20 April, Bremen, Germany
Contact: nukmed@vokativ.de

British Nuclear Medicine Society (BNMS) 41st Annual Meeting

22-24 April, Brighton, UK
www.bnms.org.uk

20th International Symposium on Radiopharmaceutical Sciences

12–17 May 2013, International Convention Centre, Jeju, Korea
Website: www.isrs2013.org

Society of Nuclear Medicine (SNM) 60th Annual Meeting

8–12 June 2013 , Vancouver, British Columbia, Canada
Website: www.snm.org

6th Annual World Molecular Imaging Congress

Date: 18-21 September, Savannah, Georgia, USA
Website: www.wmicmeeting.org

EANM'13 Annual Congress of the European Association of Nuclear Medicine

19-23 October, Lyon, France
www.eanm.org

2014

ESRR'14 European Symposium on Radiopharmacy and Radiopharmaceuticals

24-27 April, Pamplona, Spain

11th Congress World Federation of Nuclear Medicine and Biology (WFNMB)

27-31 Aug, Mexico
www.wfnmb.org

From the Editor

My thanks to all who contributed items for inclusion in this issue of the Newsletter.

The next meeting of the UKRG Committee will take place in London, 16th April 2013; the one after that at Aston, Birmingham on 17-18th July 2013. If readers have any issues they wish to be discussed please raise them with your regional rep on the Committee. Alternatively, comments on the Newsletter content or on any radiopharmacy issue can be sent direct to the Editor at the address below.

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