A Message from the Editor

Welcome to the new APR newsletter. I really hope that you will find in it something interesting and useful.

The committee has strived to produce a twice yearly newsletter but this hasn’t been easy, mainly due to lack of articles and features.

Your new publication will contain helpful articles on technique, profiles of departments or prominent people in the paediatric radiography world and news of future events. We will also be updating you on exactly what your committee is doing for you.

We always need new articles. It is YOUR newsletter so please if you have anything of interest please send it to me at: Judith.hardwick@btinternet.com

Many thanks
Jude

What is the APR?

Anyone who has ever been involved in any sort of paediatric radiography will have noticed the profound differences between children and adults. Children bring their own set of difficulties and delights; they have different pathologies, anatomical proportions, communication requirements and needs to that of the average adult. The greatest difference is the constant presence of the accompanying parent or adult who in most cases is much more concerned about the examination than if they themselves were the patients. They are essential to the examination as they are your key to a co-operative and happy patient but their anxiety must be appreciated and therefore all explanations of what is happening and nursing care must take this into account. Probably the most difficult circumstance under which to deal with children is the district general hospital where children are mixed in with adults and technique is constantly being adapted without perhaps the availability of the small specialised immobilisation devices available which make life so much easier. Paediatrics is also the one specialised area, which every junior radiographer will encounter often on the first day of his or her working life.

A group was set up in 1974 by radiographers working in the specialist field to help other non-specialist radiographers who might have to image children. The aim was to provide education and support and share experiences and expertise. In 1987 the group formally became the Association of Paediatric Radiographers. We try to hold two study days per year as well as symposia and seminars, often in collaboration with COR.
Non-Accidental Injury
RCR Meeting
20th March
The Geological Society
Burlington House
Piccadilly

9.00 - 9.35 Coffee and Registration
9.35 - 10.15 Non-accidental head injury Dr Neil Stoodley, Frenchay Hosp.
10.15 - 10.45 What can biomechanics tell us about non-accidental head injury Dr Mike Jones, University of Cardiff
10.45 - 11.15 Coffee
11.15 - 11.45 Inflicted skeletal injury Dr Steve Chapman, Birmingham Children's Hospital
11.45 - 12.30 The evidence available to support the radiologist. Dr Sabine Maguire, Cardiff University
12.30 - 1.45 Lunch
1.45 - 2.15 Accidental head trauma Dr Rob Dineen, Queen's Medical Centre
2.15 - 2.45 Cervical Spine injury Dr Caren Landes, Alder Hey Children's Hospital
2.45 - 3.15 Tea
3.15 - 3.45 Abdominal trauma Dr Kath Halliday, Queen's Medical Centre
3.45 - 4.15 Accidental injuries to the paediatric skeleton: What the orthopaedic surgeon does (and doesn't) want to know from the radiologist. Mr Fergal Monsell, Bristol Royal Hospital for Children
4.30 Meeting Close

To register please use the following link: Registration Form <https://www.rcr.ac.uk/docs/general/worddocs/General_Reg_form09.doc>, complete and return with payment by post to:
The Conference Office, The Royal College of Radiologists,
38 Portland Place, London, W1B 1JQ
Friday 20 March 2009
Trainees £85, Consultants £140

APR PAEDIATRIC STUDY DAY   Saturday 25th April 2009
Post Graduate Centre, Dumfries & Galloway Royal Infirmary

PROGRAMME
9.30 am   - Registration and Coffee
9.55am   - Chairman: Mr C Gibson, Area Radiographer, Dumfries and Galloway Royal Infirmary: Welcome
10.00am  - Children and their Joints: Miss Amanda Hawkins, Consultant Orthopaedic Surgeon, Dumfries and Galloway Royal Infirmary.
10.40am - The Role of the reporting radiographer in Paediatric Accident and Emergency Medicine: Ms Gail Jefferson, Clinical Tutor/Lecturer, Cumberland Infirmary, Carlisle.
11.20am - Coffee/Tea
11.45am - Facial Injuries in Children: Dr Iain Macleod, Consultant Radiologist, Dept. of Radiology, Newcastle Dental Hospital.
12.25pm - Mercy Ship: Ms Moira Sargent, Senior Radiographer, Falkirk Royal Infirmary.
12.55pm - Lunch
1.55pm - Chairman Mrs. J. McKinstry: Superintendent Radiographer, Hospital for Sick Children, Belfast.
2.00pm - Neonatal Imaging: Mr. M Scriven, Superintendent Radiographer, Southampton Children's Hospital.
2.40pm - Chest Problems in Children:TBA
3.20pm - Hip Imaging of Children: Ms S McDonald, Superintendent Radiographer, Aberdeen Children’s Hospital.
Chairman's Closing Remarks: Mrs. J. McKinstry.
3.50pm - AGM of the Association of Paediatric Radiographers
Cadbury House, North Somerset was an excellent venue for the autumn meeting of the APR. The sun shone on the beautiful grounds and the hotel offered great facilities for all radiographers attending.

Donna Dimond, Supt Radiographer at Bristol Royal Hospital for Children, and her staff had organised a magnificent day. Donna chaired the morning’s proceedings which started with Mary Smail, a medical physicist who always manages to make physics exciting! “Radiography and Risk in Paediatric Imaging” brought us all bang up to date with figures and facts.

Simon Thomas, Consultant Paediatric Orthopaedic Surgeon gave an excellent talk, with lovely images, on sport’s injuries in the paediatric knee. Miss Janet McNally followed with an in-depth look at “Intestinal Malrotation”. A rapid diagnosis and quick referral to surgeons is required for children where dark green bile stained vomit is seen.

Following a break for coffee and pastries Dr Neil Stoodley took the floor and highlighted the different patterns of injury between accidental and non-accidental head injury. Dr Stoodley is Consultant Neuroradiologist at Frenchay Hospital and the Bristol Royal Hospital for Children and has a vast experience of this subject.

Dr Rob Hawkes explained the “Paediatric Lines” that can be used for various treatments in children.

During lunch we not only ate from a fantastic menu but also kept our brains ticking over by doing the “Foreign Body Quiz” - great prizes were on offer so there were lots of participants. APR members won prizes 1st Faith Constantine - Derriford Hospital, Plymouth, 2nd Judith Hobson - Royal Victoria Infirmary, Newcastle

Ken Holmes was chair for the afternoon’s session. Dr Stephanie Mackenzie told us about the types of Juvenile Arthritis. She explained that it is important to identify the disease early so that aggressive treatment can be started to prevent bone and cartilage destruction.

Donna presented “Normal Variants and pitfalls in plain film imaging”, highlighting mis-diagnoses which made us realise how complicated paediatric anatomy can be.

Kevin Mann, senior paediatric clinical orthotist, gave us a very good insight into how children with scoliosis are treated and emphasised the importance of multi-disciplinary management for these children. Finally Elaine Eastman had us all playing with a wonderful assortment of toys and distractions that she uses in play therapy at the BRH. More and more children are not requiring a GA when Elaine and her team are allowed to prepare them before they attend for imaging.

The day’s programme was extremely interesting, one of the best I have been to for some time. I’m sure that all the other delegates would like to join me in thanking Donna and all the speakers for a very informative study day.

Skeletal Survey for Suspected NAI, SIDS & SUDI

The College of Radiographers and Association of Paediatric Radiographers have collaborated to produce a recommended protocol for the skeletal survey examination of children with suspected Non-accidental Injury (NAI), Sudden Infant death Syndrome (SIDS) and Sudden Unexplained Death in Infancy/ Childhood (SUDI).

The guidance was approved by the UK Council in mid-January and will shortly be found on the COR website.

www.sor.org
I have been a Committee member for just over a year, and it is a great experience to be one of the team. Hearing news and views from others on the committee, first hand, is very useful and we are hoping to build on this and share it with all our members. It is good to hear that others have the same frustrations as I do - and brilliant when a problem that has been frustrating me for some time can be sorted!

The APR is keen to get new members and to be able to share as much information as possible. We are developing policies that we are putting on our website; members can use these and, personalise them for their own hospital. This saves “re-inventing the wheel” We welcome ideas from everyone to help us develop more in all areas of paediatric imaging.

By 2012 Derriford Hospital in Plymouth should have a dedicated children’s hospital built alongside the existing General Hospital. Planning for this is very exciting and I am keen to know how other hospitals with similar set ups have fared. If you have a similar set up I would really like to hear from you.

The Paediatric Imaging suite will link in alongside the ED department that serves the main hospital - and should have ultrasound, plain DR and a screening room. Children who require CT, nuclear medicine and MRI will have to use the adult services for the moment, although I am trying to get the planners to site the new imaging suite on an outside wall so that a dedicated CT and MRI suite could be built adjacent.

It is difficult to get paediatric radiography acknowledged as a speciality in general hospitals. All too often children are seen as just “little adults”, and many do not understood why they require different imaging and more time.

To develop the service in your hospital you may find these hints helpful.

• Explain to your superintendent that the DoFH is continually improving services for children in hospitals. (Every Child Matters / Change for Children).
• Develop paediatric protocols and policies for imaging.
• Try to have a dedicated “paediatric” general room - with bright colours /pictures/ toys (not “soft” toys because of infection control) Set paediatric exposures for varying ages on the control panel, or chart.
• Talk to the Consultant Radiologist with an interest in paediatrics, if there isn’t one. ask if you can attend imaging review meetings. Sit in on reporting sessions.
• Offer to cover neonatal and paediatric portables during the day from your “paediatric” base. This will develop the standards, and help staff on children’s wards to to know you.
• Be prepared to sort queries regarding appropriate images - this can be time consuming as radiographers we must always try to keep radiation doses a low as possible, especially important for children. But it is equally important to produce the correct images for diagnosis.
• Set up dedicated paediatric screening sessions - to avoid children being “slotted” into adult lists.
• Check waiting areas - toys, colouring books and other amusements -on a regular basis for broken or damaged articles. (Produce a toy cleaning policy!!)
• Develop in house staff training; this will help you to identify staff who are keen to work with children. Pick a topic each week to chat about in a lunch hour!
• Forge links with a play therapist on the children’s ward to help children avoid requiring general anaesthetics for CT or MRI.

As there is no official training to become a Paediatric radiographer it is very important to keep a good CPD file of all you do. Attend national meetings if you can; funding is a problem but if you know a friend in that area you could always combine the meeting with a weekend away, and if you join the Association of Paediatric Radiographers there is often a reduction in fee!

Please feel free to contact me if you need any help - or if you can help me with ideas for our new hospital.

Faith Constantine
Faith.constantine@phnt.swest.nhs.uk
Many Radiographers find dealing with premature, vulnerable babies in Special Care Baby Units very challenging and the APR is often asked for practical information. Hopefully these brief guidelines will help in producing a protocol to suit your own hospital.

**60Kv** - for chest, abdomen and skull radiography a minimum of 60Kv must be selected whenever possible to reduce patient skin and organ dose.

Lead protection should be placed on top of the incubator, not directly onto baby (cross infection risk). Use small sheets of lead rubber, minimum .5Pb equiv. Old but intact lead aprons are ideal. Glue two .25Pb sheets together to make the correct lead equivalent and cut into appropriate rectangular and semi-circular shapes. Trace around cups and mugs for different sized semi-circular shapes - good Blue Peter stuff!!

Store everything you may need on the mobile unit - including a folder to hold patient details such as name, weight/age, exposure factors, and any other useful details.

Premature babies rapidly lose heat so warm cassettes on a radiator or top of incubator before wrapping in 2/3 layers of blue / white roll.

### CHEST

**SUPINE**
- Monitoring leads ECG, pO2, etc should be removed from area under examination.
- Immobilise baby by straightening legs and ask nurse to restrain by holding the knees, and upper chest if necessary. Do not leave baby's legs in their natural frog position as the femora will then be irradiated along with the lower abdomen - all neonatal long bones are particularly radiosensitive.
- Fit Pb rubber oblong sheets to head & lateral chest borders & semi-circle below diaphragm. (Minimises skin dose from beam penumbra & scatter)
- If immobilization is needed bring arms to each side of head with bent elbows, if possible. This produces lordotic view so use pad under shoulder/head or tilt cot 5-15 degrees head up.
- Many SCBU's have bean bags for immobilization of lines. These can be used to restrain hips or head. (See picture)

**FFD** - tube TOC with incubator at lowest level to achieve consistent max FFD. All chest radiographs on inspiration. Chest and abdominal views should always be taken as separate images. A combined view will be centred over the abdomen and will produce a foreshortened/lordotic chest. The only exception is for very small babies weighing 1kg or less. Centre just above nipple level and not over the abdomen. Care must be taken to place lead protection over the baby's head to include nurse's hands if restraining the arms, as well as gonad and lateral skin edge protection.

Monitoring leads ECG, pO2, etc, to be removed from area under examination; check with your neonatal staff first.

**LATERAL DECUBITUS** or **DORSAL DECUBITUS** - horizontal beam views to demonstrate fluid levels or free intra-peritoneal gas

**SUPINE**
- Use lead backed cassette holder and ensure beam is collimated to within the area of the cassette.
- Position baby LEFT side down - free gas is then well demonstrated as it collects above the liver edge.
- Place a small pad (nappy, sheet etc) under shoulders to reduce lordosis or tilt the cot base 5-15o head up - many premature babies are already nursed in this position.

Elizabeth Hunter, APR Membership Secretary.

By kind permission.
Paediatric radiographers in Edinburgh are have problems in being graded as band 6. All senior 2's are band 5. Can we help with paediatrics being recognised as a specialty? Anyone with any experience in dealing with this?

Contact: Sheila McDonald: 
Sheila.mcdonald@nhs.net

APR and the COR are working together to produce long-overdue Standards for Paediatric Imaging. Sandy Mathers and Sheila McDonald looked at Imaging Services for children in England and Wales through the College of Radiographers Industrial Partnership Research Awards. Their recommendations were:

• child-centred facilities and policies for imaging children in adult departments be developed and implemented
• formal links be established between radiographers in children’s hospitals and those in other hospitals to establish and maintain good practice
• radiographers should ask children for their views on the services, adhering to the UK Govt's patient focus public involvement agenda

• professional bodies should provide guidance for the improvement of imaging services for children to ensure staff are adequately trained and policies are in place to ensure effective practice
• Universities throughout the United Kingdom should be encouraged to provide courses in paediatric radiography practice, and service provision.

Watch this space for the Standards which should be published later this year.

**Agenda for Change**

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**STOP PRESS:**
**APR meeting to watch out for**

**PAEDIATRIC PATHOLOGY**
**WHAT THE RADIOGRAPHER NEEDS TO KNOW**
**SATURDAY 21**ST **NOVEMBER 2009**
**RUSSELL HOTEL LONDON.**

Positive responses from members re switch to e-mail communications. We are now able to collect subs via standing orders: tree-friendly; more efficient; cost-effective