G120 HEALTH PROCESS AND OUTCOME MEASURES FOR LOOKED AFTER CHILDREN—DEVELOPING A MINIMUM DATA SET
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Aims: To develop a minimum data set on demography and health for Looked After Children.
Methods: We gathered data relating to age, sex, type and area of placement, immunisation and child health surveillance, for children Looked After (LA) by a single Local Authority (40,400 children) at snapshots on 31.3.98 and 99, and over 6 months 1.2.99 to 31.7.99, from Social Services, and NHS Child Health Computers.
Results: There were 235 children LA on 31.3.98 and 292 on 31.3.99 by the Authority, giving point prevalence of 55 and 69 per 100,000 children respectively. This varies from published official figures. Cumulative incidence was 35 per 100,000 children per year. Social services data sets contained major discrepancies. There was no significant difference between numbers of boys and girls, but considerable variation between age groups of children becoming LA. In 1999, 30% children were accommodated, 64% subject to care orders. Type of placement: 6% residential, 59% foster family, 26% own family. 18% lived in a different health authority area, creating implications for service delivery and quality monitoring. Uptake of immunisations and child health surveillance among LA children aged 4 was poorer than the general population. (Dip tet and polio 86% vs 89%; Pertussis 58% vs 96%; Hib 83% vs 97%; MMR 83% vs 92%;). Baseline hearing test uptake 54% vs 74%.
Conclusion: Social Services data on LA Children was poor quality, and will require cooperative work for Quality Protects/Children First monitoring. A minimum set of demographic and health measures for LA children, routinely measured in a standard and comparable way, and benchmarked against the average population, provides a tool for measuring health improvement.

G121 USE OF INTERNET IN CHILD HEALTH: CAN IT BE TAUGHT?
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A survey of doctors working in Community Child Health in Portsmouth was carried out in October 1998 to gauge their IT skills and training needs. One of the major deficit highlighted, was in the use of the internet in clinical practice. The authors set up three workshops through 1999 to plug this deficit. The Trust funded this educational project.
Each workshop consisted of a three-hour session and was jointly run by the authors using two laptop computers with internet access connected to LCD projectors. The first half of the session was in form of interactive presentations done by the authors. The rest of the afternoon was used for “hands on surfing” and where possible using questions generated by the members for demonstration. There were forty-seven participants in all. A post session evaluation was completed by 80%. A follow up evaluation, four months later, for the first two workshops, was also done. All respondents rated the session very highly. Suggestions included: limiting the number of participants to offer a greater chance of “hands on” experience and make the session more interactive, need to develop a CD based tutorial, greater access to computers across the Trust etc. The use of internet to support professional practice has increased after the workshops
We conclude that this kind of educational package does work and professional confidence in using the internet to support clinical practice increases. A CD ROM based tutorial has now been developed.

G122 A WORLD WIDE WEB ENHANCEMENT OF A REGIONAL SPECIALIST REGISTRAR COURSE
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Background: The North West Region (Manchester Deanery) Specialist Registrar (SpR) course uses clinical problems “opened” in small groups to prompt individual learning over a fortnight after which the groups feedback among themselves and share findings in a plenary session. A web site was designed to facilitate continuing group work during the fortnight and help those unable to attend one or other meeting.
Methods: A graphics-free, rapidly loading web site was designed using Microsoft Front Page 2000. The program was user-friendly and no knowledge of web languages was required.
Results: Material was submitted to the web master in electronic form only and required the group’s discussion and learning objectives with links to relevant web resources. Supplemental postings could also be made. Uptake was slow but incremental. The initial design and implementation of the site took one evening; subsequent updates took between 30 and 60 minutes once the development was complete.
Discussion: The site allows absent SpRs to catch up with the content of missed meetings. In addition it has taught web skills and given the course an existence beyond the formal meetings. This site (www.paeds.org) has demonstrated that with simple, graphics-free & moderated pages this medium can enhance postgraduate medical education.

G123 MRCPCH TEACHING ON THE INTERNET
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Background: Easy access across the globe, potential for interactive learning, use of multimedia and the ability to rapidly disseminate medical information have all made the Internet a leading forum for the exchange of biomedical knowledge.
Aims: To develop and maintain a readily accessible website containing MRCPCH Part I and II teaching material for junior doctors preparing for the examination, and assess its utility.
Methods: Using Microsoft FrontPage 98, a large website was developed containing questions covering Part I and Pictures, Data & Grey cases for Part II MRCPCH. The site was updated to add new questions every month and the older editions were archived. A hit counter was used to assess the number of visitors to the site, a mailing list set up to inform readers of updates and a bulletin board service maintained to discuss on an open forum. Numerous links were provided for email feedback.
Results: By November 1999, nearly 14,000 visitors had used the site (roughly 40 a day) and more than 350 had registered on the mailing list (110 from the UK, the rest from 40 other countries around the world). Email feedback suggested that the site was extremely useful especially for doctors abroad.
Conclusions: Teaching on the Internet is a highly practical, interactive, inexpensive, and easily accessible adjunct to conventional models. This has major implications for the future role of the Internet in an everyday hospital setting.

G124 DEVELOPMENT OF A REGIONAL NEONATAL UNIT WEBSITE TO AID SHARING OF INFORMATION
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We have developed a large fully interactive website. This is hosted at low cost by a commercial company. The site has a simple domain name (www.hope-neonatal.com). It is over 100 pages in size and provides fully interactive facilities.
The web site provides two defined areas; for parents and for medical staff. Both are accessed from the same address.
The parent’s area provides information for parents of babies on the unit. This is of both practical and educational in nature. There is also a discussion forum for parents with links through to the consultants to complement the discussions. Links are provided to other helpful websites.
The medical area is designed for all professionals involved in neonatal care. We provide indexed and fully referenced guidelines for neonatal care in our unit. We also publish audit undertaken in the unit. Descriptive statistics including outcome are provided, as an information assisting referral. A medical discussion forum is provided, again with links to the consultants, and with full regular involvement of consultant staff. Within the medical area we provide a prospectus of the unit for prospective medical and nursing staff. There are application forms which may be completed on line or printed directly.
This website has been simply developed using Microsoft Front Page. It is dynamic and will be regularly updated. Updating the site and transferring documents is simple requiring only two mouse clicks.
This site can improve communication between parents and the unit staff, as well as between peripheral and tertiary units. Rapid access to guidelines for other units will help to harmonise transfers and to spread “best practice”. We plan to publicise the site widely amongst these groups.

G125 DIGITAL Teleradiology in Neonatal Intensive Care: comparison between interpretation of transmitted images and film radiographs
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Background and Aims: Teleradiology is the remote interpretation of digitized radiographic images by physicians. With rapid changes in technology it is important to continually and continuously re-evaluate quality and reliability of interpretation of transmitted images. The aim of this study was to test diagnostic accuracy of interpretation of images transmitted by teleradiology compared with actual radiographs in a Regional Neonatal Intensive Care Unit (NICU).
Methods: A digital Telelink, with facilities for transfer of digitised images and real time video was established between the Special Care Baby Unit of a District General Hospital and the NICU. Thirty digital x-ray images were transmitted, each accompanied by a brief verbal history. A panel of three Consultant Neonatologists, a Paediatric Radiologist and a Paediatric SpR viewed the images. The diagnosis or specific x-ray features were recorded in each
case. The plain films and history were then reviewed by the panel and diagnoses were recorded again.

Results: The panel correctly interpreted both digital and plain radiographic images in 127/150 (84.6%) interpretative episodes. The neonatologists’ interpretations agreed in 89/90 (98.8%) films viewed. There was a major diagnostic disagreement in 2/150 (1.32%) films viewed by Telereink. There was a significant difference (Mc Nemar’s Test, x² = 1.07, p = 0.25) in the diagnostic accuracy of interpretation of transmitted images as opposed to radiograph plain x-ray films.

Conclusions: The study demonstrates satisfactory diagnostic accuracy in interpretation of digitally transmitted neonatal radiographs to the Regional Neonatal Centre. Early experiences would suggest that transmitted digital radiographic images can be used reliably in neonatal consultations via a digital Telereink.

G126 DETERMINING THE COMMON PRESENTING PROBLEMS TO A PAEDIATRIC ACCIDENT AND EMERGENCY DEPARTMENT

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Aims: In order to target ‘presenting problem’ based medical guidelines in paediatric A&E, we prospectively recorded A&E over a one year period.

Methods: Data were collected on all children (0-15 years) attending the only paediatric A&E department in Nottingham between Feb 1997 and Feb 1998, using the patient access system (PAS).

Results: 38,982 children were seen, of which 26,756 (71%) were classified as trauma or surgical, 10,369 (28%) as medical and 1,857(4.8%) could not be classified. Analysis was performed using the statistical package for the social sciences (SPSS) and was complicated by incomplete data and large numbers. Medical and trauma patients differed in their source of referral (25% and 9% respectively were referred by a GP), treatment (36% and 10% respectively were given a prescription) and disposal (32% and 10% respectively were admitted to hospital). In a subgroup of medical patients (n=3,434) 32% attended 2 or more times over the course of the year. 2% were triaged as ‘life threatening’, 15% as ‘urgent’, 48% as ‘semi-urgent’, 34% as ‘non-urgent’, 1% ‘can wait’. The commonest presenting problems were breathing difficulty (31%), fever illness (20%), diarrhoea +/- vomiting (18%) abdominal pain (6%), seizure (5%) and rash (5%). The most senior doctor seeing these patients was the SHO in 77%, paediatric registrar in 19%, the consultant in 1.4% and other 2.6%.

Conclusion: Guidelines in A&E should be targeted for SHOs who see 77% of patients. Guidelines should be developed for the commonest presenting problems (breathing difficulty, fever, diarrhoea, abdominal pain and seizure) which account for 80% of all medical attendances.

G127 PREGNANCY, PLANNING AND HEALTH INEQUALITIES

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Aims: To examine the demography of unplanned pregnancy and its association with neonatal health outcomes.

Methods: A total of 2,357 women who registered for antenatal care in the Royal Maternity Hospital, Belfast, over a one year period were identified by utilisation of the Northern Ireland Maternity System clinical database (NIMATS). The following data were retrieved for each case: maternal age, parity, history of miscarriage, postdate, cigarette smoking, folie acid intake and planning status of pregnancy. Infant gestational age and birth weight were subsequently merged with the corresponding maternal file. Postcode was converted to Townsend score, an area measure of socio-economic deprivation.

Results: Forty-five percent of pregnancies in this period were unplanned. Comparison was made between planned and unplanned pregnancies using multiple logistic regression analysis. Three factors were independently predictive of unplanned pregnancy (p<0.001): low maternal age, high parity and living in an area of social deprivation. Maternal smoking was not predictive but correlated significantly with Townsend score. Low birth weight was associated with social deprivation and maternal smoking.

Conclusion: Computer databases can be used to highlight important clinical issues. Unplanned pregnancy continues to be a significant public health problem particularly for younger women from socially deprived areas. It may also impact detrimentally on the health of children and contribute to the growing polarisation of health inequalities.


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The aim of this study was to examine trends in weight, height and body mass index (BMI) in a defined population between 1989 and 1998.

Methods: Information including weight, height and age is routinely collected by health visitors. Data from one Health Authority for the years 1989 to 1998 was analysed. This included 36,876 infants (1 - 3 months) (90.6% of the live birth rate) and 29,823 children (3-4 years). A further 13,483 infants and children (16.8%) were excluded because of missing or inaccurate data. The height and weight and BMI (weight/(height)²) were standardised for age and sex using the British Growth Reference Charts. The resulting standard deviation scores (SDS) were used in all calculations. SDS > 1.04 for BMI (> 85th centile) was defined as overweight and SDS > 1.64 (> 95th centile) as obese. In infants the BMI was not calculated as there is no evidence for it's the validity at this age.

Results: Between 1989 and 1998 there was a significant increase (p<0.001) in the number of overweight children from 15% to 23.9% and obese children from 5.3% to 9.5%. There was also a significant increase (p<0.001) in mean SDS for weight (from 0.05 to 0.23) and BMI (from 0.161 to 0.323), but not for height (from 0.07 to 0.1) during this period. There was no significant increase in the weight of infants over this time (mean SDS: 1989:0.18, 1998:0.1).

Conclusions: Between 1989 and 1998 there was a significant increase in weight and BMI in children that was disproportionate to height. Infants born during the same period have not become heavier.

G129 ACCIDENT AND EMERGENCY DEPARTMENT INJURY SURVEILLANCE—USING LOCALLY RELEVANT INFORMATION TO STEER INJURY PREVENTION INITIATIVES

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Aims: to highlight an electronic-based injury surveillance system based in a regional paediatric department and a rural accident and emergency department.

Methods: From October 1997 to October 1999, all under 14 year olds presenting to the Accident and Emergency Department with an injury or poisoning were prospectively studied using the Minimal Dataset which had been developed in Australia/Canada. Age and sex of the child, where and when the injury occurred, a text description of the injury, the nature of the injury and an international product code were all entered onto this database at the first casualty attendance and all data was validated subsequent to this prior to formal entry on the database.

Data analysis was via an extractor software program with data later being exported into Microsoft Excel. We conducted a detailed prospective analysis of injuries that were deemed amenable to preventive strategies (High falls , burns/ scalds, motor vehicle passenger, bicycle and pedestrian injuries and accidental poisoning).

Results: For the 24 month period there were 6,879 children seen and entered onto the database. Male : Female ratio was 1.5:1 with a definite third quarter increase and evening predominance of injuries. 4,339 (63%) of injuries were minor and related to falls of less than 1 metre or being struck by an object or person. 1,181 children (1.8%) had scalding injuries, 124(1.7%) passenger injuries, 125 (1.7%) bicycle-related injuries, 240(2.5%) accidental poisoning with 592(8.5%) having high falls over 1 metre and 70 (1%) presented with injuries sustained as pedestrians. For car passenger injuries 50% were unrestrained and 22% were carried in the front seat. Scalding injuries always related to hot liquids such as tea and coffee. Non-wearing of bicycle helmets was universal in bicycle-related injuries. Use of child-resistant containers was a problem in relation to accidental poisoning. Specific countermeasures for all the above are currently being instituted.

Conclusions: Injury surveillance will help planning of specific countermeasures. Studying specific injury types as above allows us to clearly identify problem areas and thereafter study the success of countermeasures using the same system.

G130 CURRENCY OF PAEDIATIC FORMULARIES (PF) AND BRITISH NATIONAL FORMULARIES (BNF) IN HOSPITALS

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Introduction: Drug errors reported in the press highlight the responsibility of the pharmacist in prescribing, checking and giving medicines. Many drugs are used outside licence, and paediatric formularies are required in addition to the BNF.

Aims: To find out how current the drug information is in 3 units and the policies on keeping formularies up to date, just before the issue of the BNF 37 and the publication of “Medicines for Children”.

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Methods: All areas where drugs are given or prescribed for children were inspected without warning. The titles and editions of all PFs found were noted. The policy on formulary replacement and on adopting “Medicines for Children” was asked.

Results: The currency of the BNF and PF were:

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<thead>
<tr>
<th>Unit</th>
<th>% BNF Current</th>
<th>% PF Current</th>
<th>% Areas with Current PF</th>
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</thead>
<tbody>
<tr>
<td>A</td>
<td>59%</td>
<td>39%</td>
<td>53%</td>
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<tr>
<td>B</td>
<td>62%</td>
<td>23%</td>
<td>50%</td>
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<tr>
<td>C</td>
<td>19%</td>
<td>35%</td>
<td>100%</td>
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<tr>
<td>ABC</td>
<td>53%</td>
<td>35%</td>
<td>60%</td>
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No unit removed old formularies. One used only one PF with the pharmacist advising each area when to buy the new edition. Two had three different PFs with differing expression of dosage: total daily and single. None had a policy or the funding to adopt “Medicines for Children”.

Conclusion: All out of date formularies should be removed from our hospitals. Units and their trusts should have a policy and the funding for a current PF, ideally “Medicines for Children”, and a current BNF in every paediatric area.