



Abstract G139(P) Figure 1

**G140(P) CHANGES AND IDIOSYNCRASIES IN BRITISH NATIONAL FORMULARY FOR CHILDREN (BNFC) VITAMIN D RECOMMENDATIONS**

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**Aim** To review BNFC advice regarding prevention and treatment of Vitamin D deficiency compared to other national guidance.

**Methods**

All guidance regarding Vitamin D was reviewed in the 8 editions since the BNFC was first published in 2005. The Royal College of Paediatrics and Child Health 2003 guide (Medicines for Children) was also reviewed. Dosage guidance and indications of prevalence of Vitamin D deficiency were compared.

**Results** Treatment doses have not changed, nor have maintenance dose (sometimes called prophylactic dose) recommendations for children older than 6 months. Maintenance doses for younger children have changed (see Table) and remain higher than those recommended by the Chief Medical Officers in 2005 and 2012. There is no mention of the use of Vitamin D3 vs. D2 (colecalciferol versus ergocalciferol). There have been shifts in emphasis in remarks about prevalence; from “deficiency is uncommon” to “symptoms are uncommon” to “Asymptomatic deficiency is common among some groups”. There is unsubstantiated guidance regarding biochemical monitoring of children with D deficiency, with each of the 8 editions stating that children on treatment doses should have a blood test weekly (or twice weekly) to check calcium levels.

**Conclusions** The BNFC portrayal of D Deficiency as an uncommon problem in 2003 has gradually changed through the editions. Since 2011 the high prevalence of asymptomatic deficiency has been acknowledged. However the recommendation that children should have regular blood tests, which is not based on evidence, and is against the consensus of national experts, has remained through the editions. We propose a new clearer national dosage guide in line with the recommendations of the Chief Medical Officers and withdrawal of the recommendation to monitor serum calcium in well children with asymptomatic D Deficiency.

Abstract G140(P) Table 1

Year	Maintenance neonatal (units)	Maintenance 1–6 months (units)	Remarks on Prevalence
2003 Medicines for Children	190	190	
BNFc 2005	200-400	400-600	Deficiency uncommon
BNFc 2006	200-400	400-600	Deficiency uncommon
BNFc 2007	200-400	400-600	Nutritional deficiency uncommon
BNFc 2008	200-400	400-600	Deficiency uncommon
BNFc 2009	400	400-600	Symptomatic deficiency uncommon
BNFc 2010	400	400-600	Symptomatic deficiency uncommon
BNFc 2011	400	400-600	Asymptomatic deficiency common among certain groups
BNFc 2012	400	400-600	Asymptomatic deficiency common among certain groups

**G141(P) NON-BACTERIAL MENINGITIS NOTIFICATIONS TO A BPSU STUDY OF BACTERIAL MENINGITIS IN BABIES 0–90 DAYS OF AGE IN THE UK AND THE ROI**

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**Background and Aims** For over 25 years, the BPSU surveillance system has been used to successfully study the epidemiology of very rare diseases in the UK and the ROI. Some notifications usually do not meet study definition. It is possible to get useful clinical information from such notifications when the study questionnaires are completed also. We therefore set out to review the non-bacterial meningitis notifications during our study.

**Methods** We reviewed all reports that were sent to our study from all sources during the surveillance period and extracted the cases where the clinician completed the study questionnaire and the report did not meet our analytical definition. A descriptive analysis was subsequently undertaken.

**Results** 868 notifications were received during the study period, 365 unique reports met our case definition. The rest were either duplicates, non-cases or unable to verify. The first 46 non-cases where a questionnaire was also completed were evaluated.

18 (39%) had no CSF sample or culture result, 15 (33%) viral meningitis, 5 (11%) UTI, 4 (9%) sepsis, 3 (7%) was contaminant and 1 (2%) congenital hydrocephalus.

The median age (IQR) for the viral meningitis cases was 35.5 days (19–48), 10(67%) were male. The reported presenting features were fever 14 (93%), irritability 12 (80%), poor feeding 10 (66%), lethargy 8 (53%), poor perfusion 7 (47%), vomiting 2 (15%) and comatose 1(7%).

The median (IQR) CSF white cell count and CSF protein for the viral meningitis cases was 334/mm<sup>3</sup> (120–475) and 0.85g/L (0.59–1.28) respectively.

Overall, two deaths were observed (one was a premature baby with multiple problems and the other died of Coxsackie meningitis).

**Conclusion** We have been able to evaluate the clinical features of viral meningitis in this age group

Further analysis needs to be done to compare the viral meningitis with the bacterial cases.

#### G142(P) USING A CHILD-FRIENDLY SURVEY TO OBTAIN FEEDBACK ABOUT THE HOSPITAL EXPERIENCE OF YOUNG INPATIENTS

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**Aims** The research aimed to obtain feedback from young hospital inpatients in a manner appropriate for their age and ability, to help NHS Trusts identify how they could make improvements in their paediatric services.

**Methods** A paediatric inpatient questionnaire was designed and piloted in 2010, focusing on the aspects of care that children and young people say are most important. The self-completion questionnaire is aimed at children (and their parents) aged 0–16 years, and is offered annually to NHS Trusts in England. 15 Trusts participated in the 2012 survey, which sampled patients discharged from hospital during February 2012. Questionnaires were posted to the home addresses of 850 patients/parents at each Trust, with two reminders being mailed to non-responders.

**Results** The overall response rate to the survey across all participating trusts was 34% and demonstrated a high degree of child involvement and completion. Children and their parents reported room for improvement with the amount of privacy they were given in hospital, involvement in decisions and the quality of hospital food. In contrast, NHS Trusts performed well on hospital cleanliness and overnight facilities for parents. Children had a preference to stay on a ward with others of a similar age, whereas same-sex wards were less important. The survey also revealed some differences in the views of parents and children, for example children were less likely than parents to feel that the hospital ward was well suited to their age group.

**Conclusion** The survey highlighted where there was most room for improving paediatric inpatient experience. The research demonstrated that children are willing and able to express their views and should be consulted about their healthcare experiences. For some question areas the views of children were shown to differ to that of parents. This emphasises the importance of speaking to children directly, and discourages using parent views alone as a basis for delivering care to children and young people.

#### G143(P) IS THERE A CASE TO EMPHASISE THE USE OF LUSCOMBE FORMULA INSTEAD OF THE ADVANCED PAEDIATRIC LIFE SUPPORT COURSE FORMULA FOR THE PAEDIATRIC WEIGHT CALCULATION?

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**Aim** To validate Luscombe's formula (LF) for paediatric weight calculation comparing with the measured weight and the calculated weight by the Advanced Paediatric Life Support (APLS) formula and applying it to various emergency treatment doses .

**Methodology** The study was conducted by prospectively measuring the weight of all children attending our outpatient department, day unit and observation and assessment unit. The weight of children between the ages of 1 year to 10 years was included but any children with severe health problems and eating disorders were excluded from the study. The weights were calculated using both Luscombes weight formula and APLS formula and compared with the measured weight.

**Results** Out of a total of 156 children, 102 were between the ages of 1 to 10 years. 9 of them were excluded in view of chronic health problems of significance and 93 children were included in the study. The mean measured weight in this group was 17.27 kgs while the mean of calculated weight by Luscombes formula was 18.89 kgs and by APLS formula was 15.9kgs, with the calculated means being within 10% deviation from the measured weight. The minimum measured weight was 8.45kgs and the maximum measured weight was 34.9 kgs. The minimum calculated weight by LF was 10kgs and the maximum was 34kgs, while the minimum calculated weight by APLS formula was 10kgs and the maximum was 28kgs all of which were within the normal distribution.

If we apply all the three mean weights practically in resuscitation the dose of adrenaline (1.7ml, 1.9ml and 1.6 ml of 1 in 1000) and shock do not vary significantly, but there is variation in the dose of Intravenous fluid bolus 345ml, 378 ml and 314 ml and Intravenous ceftriaxone based on the means of the measured weight and calculated weights based on LF and APLS formula.

**Conclusion** Both APLS formula and Luscombe formula provide guidance to calculate weight, in emergency to resuscitate the child with a difference of 7 to 10% from measured weight .

#### G144(P) A STUDY OF THE PATTERN OF ATTENDANCE AND PARENT SATISFACTION IN A PAEDIATRIC ASSESSMENT UNIT

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**Aims** In many UK hospitals, the Paediatric Assessment Unit (PAU) is part of the acute paediatric ward setting that receives acutely unwell children referred from a number of sources. This study aims to investigate the pattern of attendance to a PAU at a large District General hospital in the northwest and explores parents' satisfaction with the services provided, with the ultimate aim of improving the provision of such services.

**Methods** A retrospective study analysed patient admissions to the PAU, between August 2011 and May 2012, using data from an electronic database (n = 5456). In addition, a questionnaire was devised to measure parent satisfaction with the services offered. One hundred and nineteen parents who accompanied their children filled the questionnaire in the period between 21<sup>st</sup> May and 13<sup>th</sup> June 2012 (n = 119).

**Results** The mean age of children attending the PAU was 4.5 years. More children attended the PAU on weekdays than weekends, with Monday and Tuesday having the highest rates of attendance. The busiest times were from 17:00–22:00 hours. Despite a mean length of stay of 3.6 hours, parents were generally satisfied with this time (62%). Almost all parents were satisfied with the level of care provided (83.8%). Although the majority were also satisfied with the