

environment without the risk of patient harm is highly desirable in modern healthcare. We hope that our bespoke Paediatric Preparation Day course will be adopted to enhance future trainee and patient safety.

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G286 EARLY EXPERIENCE WITH ELECTRONIC GROWTH CHART USE THROUGHOUT A LOCAL HEALTH BOARD

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Aims Electronic patient records are the future. We are proceeding toward full digitisation of the past, and, until direct electronic entry is fully established, contemporaneously for written notes and other documents. However a scanning solution cannot be applied to the growth chart. Developing our own electronic version was for control of development, and ensuring integration with the established portal to all electronic records (CWS) in the Health Board. CWS is available to all 9000 clinical users in primary, secondary and community care.

Methods Development was clinically led, working with the company conducting digitisation of medical records. A graphing product plots measurements onto a chart image. Images were created from growth data available from the Medical Research Council. Charts are for 0–2, 0–4, 0–18 years, boys and girls, with ability to display gestation correction, bone age and target height. Charts can be optionally displayed in any age range, either as a single measurement or in combination of height and weight, and in the 0–2 age, also with head circumference. Table information shows calculations of BMI, and height velocity. Location of data entry is mandated, and user identity recorded according to the CWS login. Different levels of access, determined by clinical role, and training allow measurements to be entered from any site.

Results A pilot phase began June 2014. By October the use of paper was supplanted for most patients. Presently 3199 children have active growth charts with data entry largely from secondary care, but use is rapidly increasing, and becoming more established from community and primary care. Feedback overall has been very positive, with many examples where clinical practice has been enhanced, primarily related to the fact that all clinicians in all settings can see and use the same chart on-line. Refinements are steadily being added, influenced by user opinion. A Down syndrome chart will shortly be available.

Conclusions The electronic growth chart is proving a successful substitute to paper, and working well across our Health Board. Future development and design will be directly influenced by user feedback. There is enormous potential in future enhancements, including use on mobile devices.

G287 IMPACT OF TELEPHONE REMINDERS ON ATTENDANCE RATE AT PAEDIATRIC CLINICS

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Background Non-attendance in clinics has a major economic impact in the National Health Service. Literature review indicates that the major reason for non-attendance is patients or parents forgetting their appointment and reminders before clinic appointment reduces the “did not attend” (DNA) rate. Telephone call reminders were introduced for all paediatric outpatient appointments from February 2014 in our District General Hospital setting.

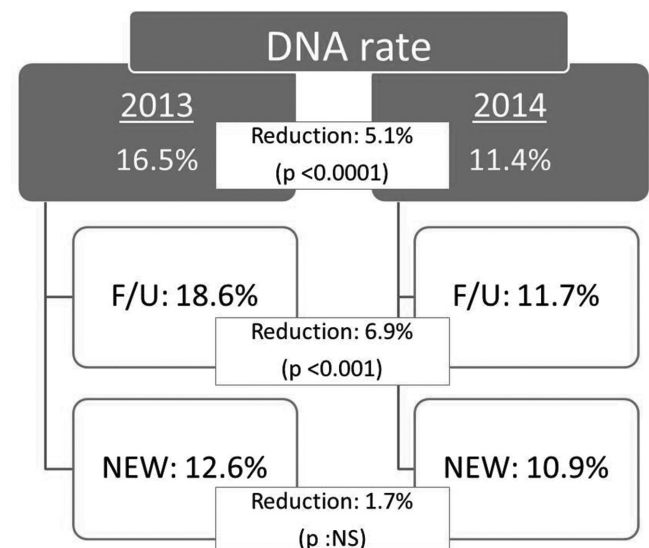
Aim We aimed to evaluate the DNA rate at the paediatric outpatients after implementation of telephone reminders.

Methods Using our hospital outpatient database, DNA rates were reviewed for 6 months (Feb–July 2013) and compared with the DNA rates for similar duration in 2014 (before and after the introduction of reminders). For Feb–July 2014 period, comparison was also made for patients who confirmed attendance during reminders versus those left a voice message and those who didn't receive a call or did not answer.

Results Total number of patients in 6 months (2013) were 4156 [2674 follow-up (F/U), 1482 New] and 4732 (3100 F/U, 1632 New) in 2014 (Figure 1). Overall DNA rate for both F/U and New appointments in 2014 was 11.4% (post intervention), which was 5.1% (p value < 0.0001) lower than the total DNA rate in 2013 (16.5%). Although reduction was noticed in both F/U and New appointments but it was only statistically significant in follow up (6.9%, p value < 0.0001) compared to new appointment (1.7%, p value 0.1470).

DNA rate was lowest at 3.4% in the patients who answered and confirmed the appointment. Patients confirming attendance were less likely to DNA compared to those patients who had voice messages (10.98% DNA, p value 0.0041) or not answering phone/not called (13.65% DNA, p value 0.0001).

Conclusion Our results endorse the usefulness of telephone reminders and validates that confirmation of clinic appointment



Abstract G287 Figure 1 DNA rate results

plays a significant role in reducing the DNA rate in the Paediatric outpatient setting. Telephone reminders and text messaging are extremely cost effective interventions, and hence routine reminders with confirmation of appointment should become standard NHS practice.

G288 A REGIONAL REVIEW OF HUMIDIFIED HIGH FLOW NASAL CANNULA OXYGEN USE IN CHILDREN

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The aims of this review were four fold

1. To document the non-intensive care paediatric experience at a regional level of oxygen delivered via high flow humidified nasal cannulae (HHFNC).
2. To understand patient outcomes and safety data with respect to HHFNC oxygen.
3. To determine whether clinical data might help identify those children most likely to deteriorate on HHFNC oxygen.
4. To create a region wide guideline based on the findings.

Data was collected between October 2013 and April 2014. A pro forma was completed by local paediatric teams at all 10 hospitals within the regional critical care network on all episodes of the use of HHFNC oxygen. To inform guideline needs of the region, questionnaires about the use of HHFNC oxygen were completed by nursing and medical staff.

210 episodes of HHFNC oxygen use were captured. Experience with HHFNC oxygen varied widely within the region. It was used most frequently in children under a year of age diagnosed with bronchiolitis. Children with bronchiolitis who deteriorated whilst receiving HHFNC oxygen had a lower pH and higher work of breathing score two hours after commencing this form of respiratory support (Table 1). The proportion of infants with bronchiolitis receiving HHFNC oxygen who required intubation and ventilation was lower than found in a previous regional review in 2008 when continuous positive airways pressure (CPAP) was the standard means of providing respiratory support. Bronchiolitic infants receiving HHFNC oxygen

Abstract G288 Table 1 Trends in children with bronchiolitis on HHFNC oxygen who deteriorated (escalated to CPAP, or intubation and ventilation), compared to those who did not deteriorate

	Deteriorated	Did not deteriorate	P value
pH pre HHFNC oxygen Mean, (Standard Deviation)	7.27, (0.076) n = 17	7.31, (0.072) n = 69	0.018
pH at 2 hours of HHFNC oxygen Mean, (Standard Deviation)	7.31 (0.104) n = 16	7.37 (0.049) n = 47	0.004
Work of breathing score at 2 hours of HHFNC oxygen Mean, (Inter-quartile range)	8, (7–9) n = 21	7, (5–7) n = 86	0.005

remained less likely to require intubation, even when adjusted for initial pH <7.25 as an indicator of severity (16% v 46%) (Table 1).

The use of HHFNC oxygen has become widespread in our general paediatric population. Our review demonstrates that HHFNC oxygen is safe in children for a variety of conditions, ages and weights. The use of blood gases and assessment of work of breathing pre and two hours after starting HHFNC oxygen could help identify those at risk of deteriorating. There is a suggestion that HHFNC oxygen may reduce the intubation and ventilation rate of children with bronchiolitis. A regional guideline has been designed based on these findings.

G289 INCREASING PARENT RESILIENCE IN CHRONIC PAEDIATRIC CONDITIONS: THE CASE OF CHRONIC PAIN

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Aims Parenting a child with a chronic health condition can be difficult. Parent wellbeing is important in its own right, and also for the sake of the child. Parents who become, albeit understandably, anxious, over-protective or detached from their ill children may not provide them with ideal support. Where a child's illness improves, parental stress is likely to decrease. However, there are a range of conditions where a child's underlying health remains problematic. We aimed to establish whether parent resilience could be improved in the face of ongoing symptoms, in this case, in a population of adolescents undergoing treatment for chronic pain.

Methods 92 parents accompanied their child (adolescent, ages 11–18) for a course of residential treatment for non-malignant chronic pain. The adolescents had disabling idiopathic pain requiring treatment at a tertiary national specialist service. Parents accompanied their children through most of the three week programme, participating in exercise and psychology sessions, as well as having three hours of dedicated parent intervention. We examined (1) parental catastrophising about pain, (2) parenting behaviour and (3) parent stress up to a three month follow up.

Results Adolescents going through the programme showed no change in their underlying pain intensity, which remained high (7.7/10). They did make functional improvements. Despite ongoing adolescent pain, parents at the three month follow up period (n = 72, 76% data completion) showed significantly decreased catastrophising about their child's pain, less protective parenting behaviour, and reduced parenting stress. Parents showed a decrease in defensive responding around their child, and did not show any increase in their tendency to 'minimise' their child's ongoing pain.

Conclusions Parents can increase their resilience and show increasingly adaptive parenting, even in cases where their child's underlying condition does not improve. Here, parents were exposed to a programme of intensive psychological and physical rehabilitation with some dedicated sessions targeted at parent resilience. Their children's pain did not change, but their approach to it did. However, the intervention studied was targeted both at child and parent; research is needed to establish whether parent-only interventions can improve resilience.