



CYMDEITHAS PEDIATRIG CYMRU
WELSH PAEDIATRIC SOCIETY

The Welsh Paediatric Society

Autumn Clinical Meeting 2024

Friday November 8th 2024

Hosted by

Dr Toni Williams and Dr Katherine Frost,

Swansea Bay University Health Board, South Wales

We are very grateful to the following sponsors who have helped ensure we could organise this educational event, with an opportunity for all of us to socialise, network and enjoy each other's company. Please visit their stalls and speak with the representatives.



WESLEYAN

PROGRAMME ~ FRIDAY 8TH NOVEMBER 2024

8.30 Registration

8.50 Welcome and introductions

Dr Nick Wilkinson ~ *President of the Welsh Paediatric Society*

SESSION 1 Chaired by Dr Dana Beasley & Dr Emily Davis

9.00 WELSH PAEDIATRIC SOCIETY GUEST LECTURE

A Wales for all children: a children's rights approach to health

Rocio Cifuentes MBE

Children's commissioner for Wales

9.40 QUICKFIRE PRESENTATIONS

P1 QIP: Reducing the Number of rejected Urine Samples for MC&S

Agaibi R 1, Pyc V 2, Oyewunmi O 3, Lynn S 3, Thomas R 4

1 Morrision Hospital, Swansea Bay UHB 2 Grange Hospital, Aneurin Bevan UHB 3

Glangwili Hospital, Hywel Dda UHB 4 Southampton General Hospital

P2 Paediatric anti-arrhythmic overdoses in the UK

Sweiry N, Tuthill D, Gray L

School of Medicine, Cardiff University; National Poisons Information Service, UK;

Children's hospital for Wales, Cardiff

P3 Childhood Acute Lymphoblastic Leukaemia relapsing as acute severe back pain

Madasu A 1, Chanda UL 2, Bhardwaj A 3, Garg V 2

1 Calderdale and Huddersfield NHS Foundation Trust, 2 Royal Wolverhampton NHS 3

Harrogate and District NHS Foundation Trust

P4 Are we ready for IVTO switch?

Ahmed S, Al-Muzaffar I

Prince Charles Hospital, Cwm Taf Morgannwg University Health Board

P5 A Padlet for Paediatric Oncology: Bitesize Information to Aid Your Admission

Fairclough E, Warland R, Kenny C, Adams M

Cardiff University, Noah's Ark Children's Hospital for Wales, Cardiff

P6 Reducing contaminant blood culture rates in a paediatric department

Ali, G, Ryan, M, Turner, L

Paediatric department, Morrision Hospital, Swansea

10.20 MORNING BREAK

SESSION 2 Chaired by Dr Peter Barnes & Dr Muthu Ravichandran

10.50 PRESENTATIONS

- P7 An evaluation, identifying health concerns amongst Refugee and Asylum-seeking children**
Adoghe M, Webster S
St Davids Children's centre, Cardiff
- P8 Prevalence of Food-Related Anxiety in 5–16-Year-olds with Food Allergy**
M. Sujeesh, E. Panayiotou
Swansea University, Paediatric Department, Morriston Hospital, Swansea
- P9 Health-related Quality of Life (KINDL) and HbA1c in Paediatric Diabetes**
Soe T, Thornton M, Jeremy J, Fountain-Polley S, Lynn S
Paediatric Diabetes Team, Hywel Dda University Health Board
- P10 Human factors in timely administration of antibiotics.**
Greenwood, P, Alseed, N, Guruge, L, Azuka, N, Haigh, G, Abelian, A.
Department of Paediatrics, Wrexham Maelor Hospital
- P11 Deprivation, pollution and respiratory disease admissions in children in Cardiff**
Dhillon H¹, Rigler D²
¹Cardiff University School of Medicine
²Noah's Ark Children's Hospital for Wales, University Hospital of Wales, Cardiff

11.40 WELSH PAEDIATRIC SOCIETY GUEST LECTURE

Newborn blood screening; the importance and impact
Jude Kay, Head of Programmes, Newborn Hearing & Newborn Bloodspot Screening Wales

Newborn screening in Wales; the past, present, future
Professor Stuart Moat, Clinical Biochemist & Director of Wales Newborn Screening Laboratory

12.20 LUNCH

SESSION 3 Chaired by Dr Katherine Burke & Dr Lucy Deacon

13.30 WELSH PAEDIATRIC SOCIETY GUEST LECTURE

Newborn screening in Wales; the past, present, future
Professor Stuart Moat, Clinical Biochemist & Director of Wales Newborn Screening Laboratory

Cystic Fibrosis Newborn screening- what you need to know as a clinician

Dr Lena Thia, Consultant in Paediatric Respiratory Medicine and Cystic Fibrosis, Children's Hospital for Wales

14.00 PRESENTATIONS

QUICKFIRE PRESENTATIONS

P12 Identifying factors affecting intention to breast feed among new mothers in Wales

Muthukrishnan KT., Gunasekran A., Nair N., Yeshwanth M

Department of Paediatrics, Prince Charles Hospital, Merthyr Tydfil

P13 Lumbar puncture in neonates with suspected sepsis within general paediatrics

Girling A

The Grange University Hospital, Cwmbran

PRESENTATIONS

P14 Evaluating Substance Misuse in Looked After Children - A Clinical Review

Johns H¹, Williams B²

¹ School of Medicine, Cardiff University,

² St David's Children's Centre, St Davids Hospital, Cardiff

P15 Risk of foetal alcohol spectrum disorder in adopted children – an elephant in the room?

E Powell¹, A Lant², P Barnes¹

¹ Hafan y Mor Children's Centre, Singleton Hospital, Swansea

² Betsi Cadwaladr University Health Board

P16 Evaluation of Paediatric Observation Charts in Clinical Practice

Yap KL, Edwards Martin

Cardiff University, Children's Hospital for Wales, Cardiff

P17 Experiences of a novel model of care for disabled children

Collins, B.¹ & Maguire, S.^{1,2}

¹ Sparkle (South Wales), Serennu Children's Centre, Newport, ² School of Medicine, Cardiff University

14.55 AFTERNOON BREAK

SESSION 4 Chaired by Dr Saurabh Patwardhan & Dr Llywela Davies

15.25 WELSH PAEDIATRIC SOCIETY GUEST LECTURE

Interpreting Blood Tests in Children with Liver Disease

Dr Chayarani Kelgeri, Consultant Paediatric Hepatologist, Birmingham Children's Hospital

16.05 QUICKFIRE PRESENTATIONS

P18 Endotracheal intubation outcomes relative to trainee level in North Wales: a retrospective audit

Rana El-Dajani 1, Chioma Ozoemelum 1, Riem Eltahir 1, Jessica Farnan 1, Ambrose Onibere 1

1 NHS North Wales, YGC, Neonatology, Denbighshire

P19 Can KidzMed teach children with autism how to swallow tablets?

Long SA¹, Woolley CM¹

1. Ysbyty Ystrad Fawr, ABUHB, Ystrad Mynach

P20 Paediatric ED Audit of Safeguarding Practices for Looked After Children

Panni H, Roberts Z

Paediatric Emergency Department, University Hospital Wales, Cardiff

16.25 WELSH PAEDIATRIC SOCIETY GUEST LECTURE

National Clinical Network for Child Health- what can we all do for the children of Wales

Dr Claire Thomas, Clinical Lead for the Strategic Paediatric Health Network

Sarah Hooke, Network Support Manager

17.05 Closing Remarks

Dr Nick Wilkinson ~ *President Welsh Paediatric Society*

17.15 Welsh Paediatric Society Business Meeting

19.30 Pre-dinner drinks

20.00 Welsh Paediatric Society Dinner

Abstracts

P1 **QIP: Reducing the Number of rejected Urine Samples for MC&S**

Agaibi R 1, Pyc V 2, Oyewunmi O 3, Lynn S 3, Thomas R 4
1 Morrision Hospital, Swansea Bay UHB 2 Grange Hospital, Aneurin Bevan UHB 3
Glangwili Hospital, Hywel Dda UHB 4 Southampton General Hospital

Introduction: It was noticed that multiple urine samples for microscopy, culture and sensitivity (MC&S) were not being processed by the laboratory in Glangwili hospital. This could potentially lead to delay of the result, improper treatment for urinary tract infections and increase the cost on NHS for repeating the test.

Method: We collected the data from the laboratory for all paediatric urine samples sent for MC&S by the paediatric team over 9 months. We analyzed the data to understand the reasons for rejection. We did 2 PDSA cycles and 2 interventions. Following the first PDSA Cycle, we provided educational sessions to members of the MDT to ensure staffs were aware which sample containers to use for urine MC&S and a poster on the ward. Following a second PDSA cycle, we worked with the laboratory and IT department to improve the wording of the sample label on WCP.

Result: In the first 3 months, 9.3% (11/118) urine samples were rejected, mainly due to urine being sent in the wrong container. Following the first intervention only 3.2% of urine samples were rejected (4/124). Further improvement was achieved after the second intervention to only 2% (2/100) rejected samples.

Conclusion: Ensuring the first urine sample for MC&S is processed by the laboratory in a timely manner is an important issue in providing the best care possible. Simple interventions have led to an improvement in this and therefore improving patient care. We recommend other hospitals consider similar interventions.

P2 **Paediatric anti-arrhythmic overdoses in the UK**

Sweiry N, Tuthill D, Gray L
School of Medicine, Cardiff University; National Poisons Information Service, UK;
Children's hospital for Wales, Cardiff

Introduction:

Antiarrhythmic medications, including beta blockers and antiarrhythmic agents such as flecainide, have a role in both the management and prophylactic therapy of cardiac arrhythmias. However, their side effects and toxicities in overdose can be life threatening.

Methods: We conducted a retrospective analysis of all telephone enquiries from the U.K. to the National Poisons Information service (NPIS) involving antiarrhythmic medications in children ≤ 17 years between 2019-2023. Enquiries were analysed with regard to age, agent, intent, clinical features and severity. Enquiries directed to the online clinical service TOXBASE were excluded as age specific data are not available.

Results: There were 51 enquiries; 30 involved single agent ingestions and 21 multiple agents. Exposures were: intentional 21 cases (41%); accidental 15(29%); therapeutic error 13(25%) and unknown 2. Ages ranged from 13 months to 17 years with peaks at 2-3years and a larger one at 14-15years. Flecainide was the most common agent in both single(n=15) and multiple drug (n=7) enquiries. Half were symptomatic 26/51(51%) with hypotension (8/51) the most common symptom.

Treatment was recommended in (38/51): Sodium bicarbonate (2), Calcium chloride/gluconate (3) high dose insulin or insulin/dextrose infusions (6) for symptomatic patients. Therapeutic monitoring for worsening of symptoms, electrolyte disturbances and ECG abnormalities was performed for 31/51 enquiries. We found no fatalities, but outcome data are limited. 9 A+E referrals, 1 GP and 2 hospital follow ups were arranged.

Conclusions: Overdoses of anti-arrhythmic agents in children are uncommon, mostly due to intentional ingestion in teenagers, often symptomatic, but rarely fatal.

P3 **Childhood Acute Lymphoblastic Leukaemia relapsing as acute severe back pain**

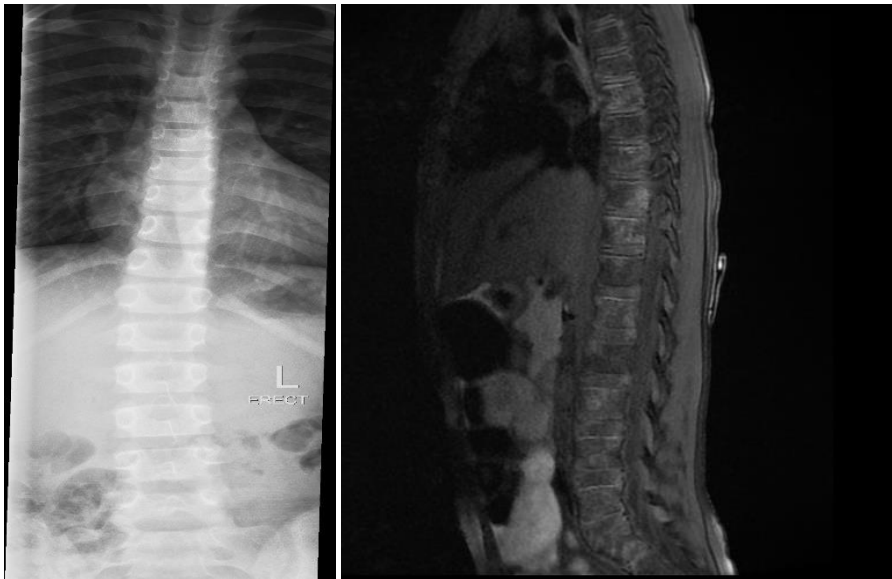
Madasu A 1, Chanda UL 2, Bhardwaj A 3, Garg V 2

1 Calderdale and Huddersfield NHS Foundation Trust, 2 Royal Wolverhampton NHS 3 Harrogate and District NHS Foundation Trust

Introduction Acute lymphoblastic leukaemia (ALL) is the most common paediatric malignancy, accounting for around 25% of childhood cancers. Survival rates have improved due to therapy advancements, with a paediatric survival rate of 80-85%. The most common cause of treatment failure is relapse (15-20%), typically occurring within the first two years of treatment, and most frequently in the bone marrow, central nervous system (CNS), or testes. The prognosis is dependent on the relapse site, with bone marrow relapses carrying a dismal outlook. Approximately 30-50% of children with relapsed ALL can be cured. This is a very rare presentation of severe acute back pain as a relapse of ALL in a child undergoing chemotherapy.

Case report We report an 8-year-old boy diagnosed with Precursor B-cell ALL. He achieved molecular remission post-induction therapy. He developed severe back pain during maintenance chemotherapy. Despite normal blood results and X-rays, his back pain progressed, resulting in opioid therapy. Magnetic Resonance Imaging (MRI) revealed multiple vertebral infiltrations and bone marrow analysis confirmed an isolated bone marrow relapse. Cytogenetics identified a 1:19 translocation not present at diagnosis. Due to the high-risk stratification, a relapse protocol was initiated. Despite undergoing a bone marrow transplant, he experienced another relapse and unfortunately succumbed to the disease.

Conclusion ALL relapses presenting as acute back pain are extremely rare. Due to the poor prognosis, it is vital to rule out bone marrow relapse in children undergoing chemotherapy presenting with sudden back pain, as prompt specialist input may improve outcomes.



P4 **Are we ready for IVTO switch?**

Ahmed S, Al-Muzaffar I

Prince Charles Hospital, Cwm Taf Morgannwg University Health Board

Introduction Current management of early onset neonatal infection includes at least 36 hours of intravenous (IV) antibiotics. If there are ongoing concerns like raised CRP, then IV antibiotics are continued in hospital for up to 7 days. There is growing body of evidence that early intravenous to oral antibiotic switch in neonates who receive prolonged antibiotic course because of a probable bacterial infection is a safe practice.

Methods We studied all babies who were born from 01/01/2024 to 31/07/2024 at Prince Charles Hospital, >34+6 weeks gestational age, received intravenous antibiotics in the first 72 hours of life, negative blood

culture, maximum C-reactive protein value of < 50 mg/L, and decision to continue treatment with antibiotics beyond 36 hours.

Results 20 babies met selection criteria. Total number of days of intravenous antibiotics was 90 days. The potential impact of the proposed change of practice was 33% reduction in IV gentamicin doses, 66% reduction in IV Benzyl penicillin doses, and 56% reduction in IV antibiotic days. If we implement this practice across Wales; 413 babies will potentially benefit every year with 393 doses of IV Gentamicin, 381 doses of IV Benzyl penicillin, and 1033 antibiotic days saved.

Conclusions An early intravenous to oral antibiotic switch in neonates with probable bacterial infection potentially enables earlier discharge home and reduce the burden of IV antibiotics and health care costs.

P5 A Padlet for Paediatric Oncology: Bitesize Information to Aid Your Admission

Fairclough E, Warland R, Kenny C, Adams M

Cardiff University, Noah's Ark Children's Hospital for Wales, Cardiff

Introduction Annually around eighty children with new oncological diagnosis are admitted to Rainbow Ward at Noah's Ark Children's Hospital. This first admission can last several weeks and families often feel unprepared. This project aimed to create accessible online digital resource for patients and families, sharing key information in preparation for admission.

Method An online questionnaire was distributed to consenting families. Thematic analysis of responses to two question categories: 'pre-existing resources for families' and 'ideas for digital content' was undertaken. The most common ideas for digital content were prioritised, created then uploaded to the virtual pinboard Padlet.

Results Information was obtained from 30 children and their families. 77% of responses preferred video format as the digital media of choice followed by links to recognised websites and a personal experience section. Families disclosed information overload as problematic and shared the need for reliable resources to return to. Virtual ward tour and multidisciplinary team introductions were requested most for digital content with the importance of creating multi-language resources highlighted.

Conclusions The digital resource created will help families feel more informed and prepared about their child's admission. Having a resource to revisit will reduce information overload and transform experience of the first admission. Limitations include a small number of participants and limited time to produce content.

Recommendation Further evaluation is needed to assess the resource's impact on patient experience. The resource will be promoted across shared care centres and referring hospital in Wales to allow access prior to admission.

P6 Reducing contaminant blood culture rates in a paediatric department

Ali, G, Ryan, M, Turner, L

Paediatric department, Morriston Hospital, Swansea

Introduction We aimed at reducing the rate of contaminant blood culture samples by 0.5% over a 6-month period. This initiative focuses on improving sample collection techniques and raising awareness among healthcare providers which will help in early detection of infection sources, enabling appropriate treatment. This will help to reduce antibiotic overuse, antibiotics resistance and length of stay.

Method

- Feedback was collected from trainees to assess their knowledge about the techniques for blood culture collection
- Data on blood culture contamination rates from the previous 6 months was obtained from the microbiology lab
- Guidance on proper blood culture collection techniques was reviewed
Changes were implemented, including a presentation to doctors on proper blood culture techniques, placing posters on walls, and incorporating this information into the induction
- Re-audit after 3 months.

Results From 01/01/2023 to 01/06/2023:

- 19 out of 326 total samples were contaminants
- contamination rate: 5.8%

Following 3 months of continuous education, a re-audit was conducted during the period from 01/09/2023 to 01/03/2024:

- 15 out of 333 total samples were contaminants
- contamination rate: 4.5%

This shows reduction in the rate of contaminant blood cultures by 1.3%

Conclusion The study successfully reduced the percentage contamination rate of blood cultures by 22.4% in comparison to the initial rate following targeted educational interventions.

Recommendation This improvement highlights the importance of ongoing education and monitoring. Conducting the audit in other hospital departments to raise awareness about preventing contaminant blood culture samples.

P7 An evaluation, identifying health concerns amongst Refugee and Asylum-seeking children

Adoghe M, Webster S
St Davids Children's centre, Cardiff

Introduction This study aims to identify common health concerns of accompanied refugee and asylum-seeking (RAS) children in Cardiff, to inform the creation of a public health resource. This resource will be given to parents at Initial Assessment (IA) clinics to empower their handling of their child's health.

Method A mixed-method approach was applied. Retrospective collation of data from medical records of a sample of 100 accompanied RAS paediatric patients at Cardiff and Vale Health Inclusion Service (CAVHIS) from September 2022 to May 2023 was analysed.

Prospective data was collected during IA appointments attended during 22nd May 2023 to 14th June 2023, with parents asked a standardised question: 'What information on childhood health and medical conditions would you want to know more about?'

Results 72 of the 100 patients had an illness addressed, with the most common categories of disease being Respiratory (29%) and Infection (21%). The most common disease was URTI. On the basis of service provision, 45% of patients did not have vaccinations with full evidence, 62% and 50% of patients received dietary and dental advice accordingly, and 28% required Red Cross service referral. 8 answers were given by parents to the standardised question.

Conclusion The focus of both common minor ailments and frequent public health advice such as diet and service provision such as Red Cross, highlights the importance of creating a public health resource where all this information can be collated for parents. In collaboration with Public Health Wales, the creation of this booklet has begun.

P8 Prevalence of Food-Related Anxiety in 5–16-Year-olds with Food Allergy

M. Sujeesh, E. Panayiotou
Swansea University, Paediatric Department, Morriston Hospital, Swansea

Introduction: Allergies affect a significant proportion of the population, yet their impact on mental health, particularly in children, is poorly understood. This survey aimed to investigate anxieties experienced by children with food allergies.

Method: Children aged 5-16 years with food allergies attending the paediatric allergy clinic at Morriston Hospital, were invited to complete the SOFAA-C questionnaire, a validated tool for assessing food allergy anxiety. Sixteen children completed the 21-item questionnaire, exploring fears related to allergen consumption, contact, proximity, and behavioural changes and excessive reassurance. Responses indicating 'often' or 'almost always' worried were analysed.

Results: Participants reported feeling 'often' or 'almost always' worried a total of 66-times across the items. Fear of consumption was most prevalent among children aged 5-7 years (43.5%), with lower rates

in older groups: 8-11 years (30.4%) and 12-16 years (26.1%). Fear of contact with allergens was least common amongst 12-16 years group (20%), with equal proportions in the 5-7 years and 8-11 years groups (40%). Fear of proximity to allergens was most frequent in 5-7 years (43.7%) and declined with age. Avoidance behaviours were most common in 8-11 years (64.7%), compared to 5-7 years (29.4%) and 12-16 years (5.8%). Chi-squared analysis showed no significant differences across age groups ($p=0.390$). **Conclusion:** Although allergy-related fears were common, no significant association between age and specific anxieties was found. Further research is needed to understand the psychological impact of allergies on children. The survey showed however that food related anxieties should be explored as part of holistic management.

P9 Health-related Quality of Life (KINDL) and HbA1c in Paediatric Diabetes

Soe T, Thornton M, Jeremy J, Fountain-Polley S, Lynn S
Paediatric Diabetes Team, Hywel Dda University Health Board

Introduction We previously demonstrated poorer health-related quality of life using the validated KINDL tool in families managing paediatric diabetes. High HbA1c suggests problematic diabetes management and possibly poorer quality of life. Increasing HbA1c of 1mmol/ mol negatively affects long-term outcomes. Lower KINDL scores reveal poorer quality of life.

Method HbA1c from 2023-24 National Paediatric Diabetes Audit clinic data was compared with annual KINDL questionnaires completed by children and young people (CYP), and their main caregivers. From 185 CYP, 110 CYP filled age appropriate KINDL questionnaires and 94 adult caregivers. Statistical analysis using R software calculated linear regression to measure relationships for HbA1c and quality of life.

Results Analysis of HbA1c and KINDL for CYP revealed coefficient of linear regression of -0.03471 ($-31.783 - 29.780$), suggesting 1mmol/ mol rise in HbA1c relates to reducing quality-of-life score of 0.03, not statistically significant ($p=0.7$). Caregiver questionnaires coefficient of linear regression was -0.1526 ($-29.5093 - 25.9960$), suggesting increasing HbA1c of 1mmol/ mol relates to reducing quality-of-life score of 0.15, not statistically significant ($p=0.13$). KINDL answers were available in 89 pairs of CYP/ caregivers with statistically significant coefficient of correlation 0.437 (95% CI 0.25 – 0.59, $p=0.00018$).

Conclusion No statistically significant association between quality-of-life scores and HbA1c is demonstrated. Parent answers seem more correlated with HbA1c. CYP and caregiver KINDL correlate suggesting agreement on diabetes impact on quality of life. Expectations in families with diabetes that more psychological distress is associated with higher HbA1c is not confirmed. Further investigation needs to find appropriate targets for intervention to improve quality of life.

P10 Human factors in timely administration of antibiotics.

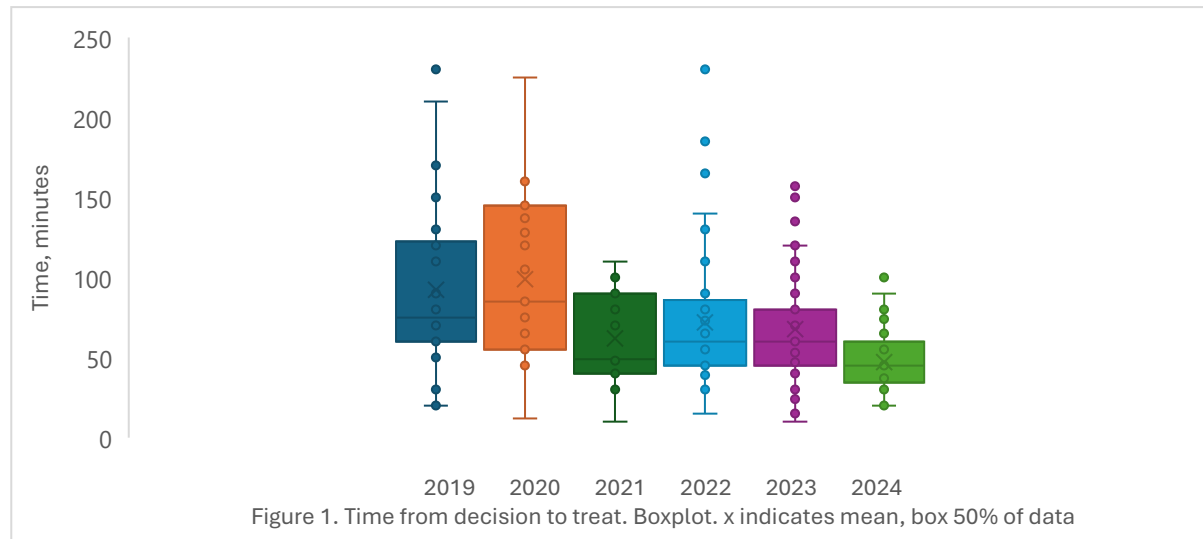
Greenwood, P, Alseed, N, Guruge, L, Azuka, N, Haigh, G, Abelian, A.
Department of Paediatrics, Wrexham Maelor Hospital

Introduction. The objective was to test whether addressing human factors shortened the time to the administration of antibiotics for suspected early-onset neonatal sepsis.

Method. Level 1 neonatal unit with ~300 admissions/year. From 2019 to 2024, six audits of antibiotic administration were conducted involving, an average of 40 patients per audit. A pharmacy monograph for intramuscular (IM) cefotaxime was introduced in 2021, along with unit posters and staff memos on the importance of timely antibiotic administration. In 2024, based on the findings of a validated survey of 28 members of our staff (Guruge, WPS 2024), the emphasis shifted to addressing human factors including promotion of good examples set by senior staff, emphasising personal responsibility, and forming a habit of assigning importance to the timely administration of antibiotics. The data were compared using the Mann-Whitney U test.

Results. The average time to antibiotic administration decreased to ~47min (SD~18min), a statistically significant change compared to the preceding three years ($p=0.002$), when it was ~65min (SD~50min), and especially compared to the pre-IM cefotaxime years when it was ~95min ($p<.0001$) (Figure 1).

Conclusion. The findings indicate that addressing the perceived lack of personal responsibility, promoting good examples by senior staff, and helping to form a habit of prioritizing the timely administration of antibiotics, as identified in the previous study, have significantly shortened the time to administration of antibiotics for the first time in three years. Continued surveillance will be required to ensure these measures become normalised and that the improvements are sustained.



P11 Deprivation, pollution and respiratory disease admissions in children in Cardiff

Dhillon H¹, Rigler D²

¹Cardiff University School of Medicine

²Noah's Ark Children's Hospital for Wales, University Hospital of Wales, Cardiff

Introduction This project is a service evaluation to understand the effect of pollution and deprivation on the admission rates of children with asthma, bronchiolitis and viral-induced wheeze (VIW) in Cardiff and the Vale of Glamorgan (CAV). The paediatric same day emergency care unit (PSDEC) is the source of 85% of paediatric admissions. It primarily receives children referred from general practice and aims to either admit or treat and discharge children. It is vital for the care and progress of children through the healthcare system bridging the gap between primary and secondary care.

Method Children presenting to PSDEC with asthma, bronchiolitis and VIW during 2019 were identified from attendance records. Each child's postcode was matched to pollution level and deprivation scores obtained from open sources online. This data was analysed for any trends.

Results Children attending PSDEC with asthma, bronchiolitis and VIW have a mean deprivation score lower than the national average for Cardiff, with statistical significance at $p < 0.05$. Deprivation has a low-level correlation with increased pollution levels (Pearson's r value). However, this correlation was not replicated for children presenting with respiratory illness who, on average, had a pollution level lower than the CAV mean.

Conclusion In conclusion, children from more deprived areas are more likely to present to hospital with respiratory illness. There is a milder impact of pollution on outcomes. This project emphasises the need for government policies to improve child health in poverty, reducing respiratory illness hospitalisations through income support, free school meals and smoking cessation education.

P12 Identifying factors affecting intention to breast feed among new mothers in Wales

Muthukrishnan KT., Gunasekran A., Nair N., Yeshwanth M

Department of Paediatrics, Prince Charles Hospital, Merthyr Tydfil

Introduction: Breast feeding is a part of the natural reproduction process with significant impact on health of mother and baby¹. The Infant feeding survey conducted in 2010 showed that breast feeding initiation was at 81%, but exclusive breastfeeding rates reduced to 17% at 6 weeks and 1% at 6 months of age.² These numbers were achieved as an effect of the Baby Friendly Initiative.

This study aims to assess breastfeeding initiation rates among new mothers and identify potential factors which affect breastfeeding rates.

Methods: Data was prospectively collected among 100 post-natal mothers between March and June 2024 during their stay in Prince Charles Hospital using an anonymised digital questionnaire by scanning a QR code on their smart phones. All mothers in post-natal ward with well babies were included.

Results: Among the 100 mothers who participated in the study, 36% wished to exclusively bottle feed while another 25% wanted mixed breast and bottle feeding. Only 29% chose exclusive breastfeeding. Among the factors analysed, having support at home ($p=0.007$), obtaining information on breastfeeding ($p<0.05$), information provided on multiple occasions ($p=0.002$) and previously breastfeeding ($p<0.05$) were significant in mothers choosing to breastfeed. Logistic regression revealed previous breastfeeding was the most important factor influencing breastfeeding ($p=0.001$), followed by providing breastfeeding information on multiple occasions.

Conclusion:

Majority of mothers have intention to breastfeed if they have appropriate support at home. A midwife led initiative is underway to encourage families to support mothers during breastfeeding. We aim to review the feedback and breastfeeding rates in a year's time.

References:

1. Victora, C. et al. 2016. Breastfeeding in the 21st century epidemiology, mechanisms, and lifelong effect. The Lancet
2. UNICEF. 2018. Breastfeeding: A Mother's Gift, for Every Child. New York: United Nations Children's Fund.
3. Infant Feeding Survey – 2010 available at <https://digital.nhs.uk/data-and-information/publications/statistical/infant-feeding-survey/infant-feeding-survey-2010-early-results>.

P13 Lumbar puncture in neonates with suspected sepsis within general paediatrics

Girling A

The Grange University Hospital, Cwmbran

Introduction The NICE guideline for fever in under 5s advises that all infants aged under one month with a fever should have a lumbar puncture (LP). The aim of this audit was to identify the incidence of LP in neonates admitted to general paediatrics with suspected sepsis. Secondary objectives were to identify reasoning for not performing an LP, and time between admission and cerebrospinal fluid (CSF) samples reaching the laboratory.

Method Using digital patient records, all admissions aged 28 days and under to the general paediatric ward between the 1st January and 31st December 2022 were identified. Using scanned medical records, neonates who received broad spectrum antibiotic treatment for suspected sepsis were selected. Digital pathology records were used to identify CSF samples received by the laboratory.

Results There were 364 admissions of neonates to the General Paediatric ward in 2022. 72 received antibiotics for suspected sepsis. 57% who presented with fever had CSF samples received in the laboratory. 79% of CSF samples reached the laboratory within 24 hours of admission time. Of those who did not have CSF samples sent to the laboratory, 32% had no documentation of reasoning for not performing an LP, and no documented unsuccessful attempts.

Conclusion Use of LP in neonates presenting with fever to general paediatrics can be improved. Time between admission and CSF samples reaching the laboratory and documentation of LP can also be improved.

Recommendation Documentation of clinical decisions must be clear, and every effort made to complete LP at the earliest opportunity.

P14 Evaluating Substance Misuse in Looked After Children - A Clinical Review

Johns H¹, Williams B²

¹ School of Medicine, Cardiff University,

² St David's Children's Centre, St Davids Hospital, Cardiff

Purpose To conduct a clinical review and evaluate the literature in respect of substance misuse in Looked After Children (LAC). Findings from these reviews would highlight areas for future research and the issues for the looked after health professionals to address with young people.

Method The literature review was completed using Scopus and PubMed. 12 relevant studies were analysed. Clinical review was formed by reviewing statutory health assessments from LAC aged 14-17 in the Cardiff and Vale UHB in 2023. 150 LAC Health assessments were analysed for vaping, smoking, alcohol, and recreational drug use.

Results 24% of LAC engaged in 1 or more risk-taking activities. 29% of LAC vape, the most popular risk-taking activity in this sample, aligning with current literature. More LAC currently vape than smoke (29% vs 19%). 13% currently drink alcohol. 21% of LAC abuse drugs, of those 77% use cannabis. Only 6% of LAC drug users wanted the opportunity for support for drug misuse.

Conclusions The most prevalent risk-taking activity was vaping. Across all risk-taking activities, LAC were resistant in wanting support to help cease misuse. There were elements of missing information in most health assessments, a key limitation for this review.

Recommendation Focus groups with LAC could be implemented exploring their substance use and consider how best to engage them in committing to cessation. It would be useful to remind professionals undertaking health assessment of the All Wales LAC Health Assessment Quality Framework to improve the completion of all fields within the health assessment.

P15 Risk of foetal alcohol spectrum disorder in adopted children – an elephant in the room?

E Powell¹, A Lant², P Barnes¹

¹Hafan y Mor Children's Centre, Singleton Hospital, Swansea

²Betsi Cadwaladr University Health Board

Introduction Foetal alcohol spectrum disorder (FASD) is a condition associated with medical, developmental and emotional problems that can have lifelong consequences. NICE quality standards highlight that no national data on prevalence of prenatal alcohol exposure or children with FASD is routinely gathered. Children looked after, including those adopted are deemed to be at greater risk of being affected by FASD and the lack of a national pathway for assessment is a particular issue for them. We set out to explore the proportion of children with an adoption plan who might be at risk of developing FASD.

Method Data on prenatal alcohol and drug exposure was collected on retrospective review of pre-adoption medical reports prepared in two centres in Wales. Information relating to examination findings and the developmental progress of the children seen was also gathered.

Results Of 189 cases reviewed, prenatal alcohol exposure was documented in 21%. In another 21% of cases, it was unclear whether there was prenatal alcohol exposure. Of children with recorded exposure, 20% had emerging developmental concerns and 20% had facial features consistent with FASD. In 10% of reviewed cases there was a history of both alcohol and substance misuse in pregnancy.

Conclusion and Recommendation Our findings highlight that a significant proportion of children who have a potential adoption plan are at risk of developing FASD, with some already displaying suggestive features. The lack of established national assessment pathways requires action so as to ensure that the needs of this vulnerable group are met.

P16 Evaluation of Paediatric Observation Charts in Clinical Practice

Yap KL, Edwards Martin

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Introduction Following the tragic death of Lewys Ryan Aidan Crawford due to meningococcal septicaemia, Noah's Ark Children's Hospital implemented a colour-coded observation chart in 2022, enhancing early detection and management of paediatric emergencies. (1)

Method A two-week concurrent review (16-31st May 2024), was conducted across four paediatric wards. Furthermore, feedback from healthcare staff was gathered.

Results Analysis of 135 patients revealed varied compliance for documentation. High compliance was observed in age-specific charts, respiratory rate (RR), oxygen saturation (O₂), and heart rate (HR). However, a need for improvement in documenting respiratory effort, capillary refill time (CRT), and AVPU is required. We also found that escalation adherence varied across the wards (64% - 86%). Additionally, we received 65 feedbacks from healthcare staffs. The feedback was generally positive. However, specific areas for improvement (layout enhancements and consistency in documentation) were highlighted.

Conclusion The observation charts effectively identify unwell children and guide management, but minor improvements can enhance patient care outcomes, such as standardised staff training, and clear escalation procedures.

Recommendation Wales introduced a national prescription chart in 2004, improving patient safety through consistency across hospitals. Given its success, implementing a standardised observation chart and staff training across Wales could further enhance patient care and prevent future misunderstandings. (2)

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P17 Experiences of a novel model of care for disabled children

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Introduction

Paediatrics 2040 by RCPCH shares a vision for future models of care which are: child-centred, showing compassion for their needs and providing equity of care for all families; connected and integrated; enhanced to improve quality of life for children with long-term conditions; optimises use of technology; where child and family engagement are embedded in paediatric services. Sparkle, a charity in South Wales, explored professional and family experiences of a novel model of care for children with disabilities.

Method Professionals and families were invited to share their experiences of 'the Serennu model' during a series of webinars on delivering specialist services for children with disabilities. There were 12 panellists across four webinars, including a young person, parents, and professionals from health, social care, the charity and Cardiff University.

Results Professionals from health and social care agreed co-location of health, social care and the third sector was positive, due to increased collaboration and multidisciplinary working, improved relationships and understanding between services, and better outcomes for children and families. Families valued opportunities to influence service development, and felt the environment and enhanced services led to better quality of care and quality of life, as well as maximising the use of facilities. Hopes for the future included expansion of the Serennu model and a shared budget and management structure for true integration.

Conclusion These webinars demonstrate that 'the Serennu model' addresses many aspects of RCPCH's vision for future models of care, offering learning for other regions.

P18 Endotracheal intubation outcomes relative to trainee level in North Wales: a retrospective audit

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Background: Tracheal intubation, a critical skill for patients of all ages, faces challenges due to reduced trainee exposure. Newborn endotracheal intubation, though not mandatory for UK Paediatric trainees, remains life-saving.

Aim: This study demonstrates the need for innovative approaches to training in intubation that enhance trainee experience and skill.

Methods: A retrospective analysis of neonatal data was collated for the period 01/01/21 - 31/12/2023 in North-Wales

Results: Tracheal intubation was performed in 254 babies, across north Wales. Intubation predominantly occurred in SCBU (75.2%), as opposed to Theatre (15.4%) and delivery suit (7.5%). The most common reasons for intubations were; respiratory distress syndrome (69.3%), Failed extubation (8.2%), PPHN (3.5%) and Pneumothorax (3.9%)

Mean number of attempts per child in north Wales over the 3 years is 2.54 First attempt with neonatal intubations were commonly performed by tier 1/junior trainee (31.5%), followed by tier 2/middle grade trainee (33.9%), and consultants (13.4%). Final successful intubation rates among tier-1 trainees were 18.1%, tier 2 was 33.5% and 26% in consultants.

Conclusion: Intubation is crucial for stabilizing premature or unwell neonates. With changes in working hours, and the increasing use of non-invasive ventilation, trainees have less exposure to intubation. Success rates improved with higher training grades.

Recommendations:

1. Junior doctors should have a maximum of 2 intubation attempts, totaling no more than 4, to avoid upper airway trauma and complications
2. Intubation should remain mandatory to ensure the skill is acquired by trainees
3. Regular training/simulation sessions should be provided, use video laryngoscope as much as possible

P19 Can KidzMed teach children with autism how to swallow tablets?

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Introduction A previous local quality improvement project (QIP) demonstrated that the KidzMed technique, developed by Great North Children's Hospital, can successfully teach neurotypical children how to swallow tablets using sweets. However, this did not include children with autism spectrum disorder (ASD). This QIP aimed to establish the parental awareness of KidzMed, and demonstrate effectiveness in children with ASD.

Methods Parents of children with ASD between the ages of 3 to 8 years were invited to participate in the project. Initial telephone contact recorded parental awareness of KidzMed. Parents were then asked to trial the KidzMed technique over 4 to 8 weeks. A post-training telephone questionnaire was undertaken to establish the effectiveness of KidzMed technique.

Results 16 patients consented to participate. Only 1 parent had previously heard of KidzMed. Following training, 2 patients were able to swallow unchewed sweets, 9 were not able to but parents felt they would do if training continued, 3 were not able to and parents felt they were unlikely to do so, and 2 patients had other reasons for not being able to swallow sweets (pica, tic-tac). Identified difficulties included: the child's understanding, confidence, sensory needs, pica and timing of intervention. 100% of parents recommended KidzMed to other parents.

Conclusion The KidzMed technique has and can be used to teach children with ASD how to swallow tablets and barriers to success identified. Suggested areas for future QIP cycles include: initiatives to raise awareness, yearly follow up of patients, and cost benefit analysis.

P20 Paediatric ED Audit of Safeguarding Practices for Looked After Children

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Introduction Looked After Children (LAC) are a vulnerable group with unique health needs, resulting from adverse childhood experiences. Safeguarding standards in emergency settings focus on documentation and inter-agency communication. A key practice is the submission of a Multi-Agency Referral Form (MARF) after LAC visits to the Emergency Department (ED) to address safeguarding concerns and enable information sharing. An audit was conducted at the University Hospital of Wales (UHW) to assess MARF submission and compliance with other safeguarding practices.

Methods The LAC database generated a list of 1061 LAC based in Cardiff & Vale from 01.01.23 - 31.12.23. A review was conducted using Welsh Clinical Portal, Clinical Portal, and PARIS 7. The primary outcome was to review the number of MARFs submitted after visits. Secondary outcomes included assessing adherence to safeguarding procedures, such as recording the name and relationship of the accompanying person and inquiring about social workers.

Results Of 1056 children reviewed, 196 LAC presented to the PED at least once in 2023, totalling 337 visits. MARFs were not completed in 136 visits (40%), and 23 not asked about social work involvement. Of 306 visits with safeguarding documentation, 280 recorded the escort's name and social work involvement, with 268 noting the escort's relationship with the child.