Service Improvement in Paediatric Emergency Care: the way forward

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Aim of Presentation.

- Outline a con-joint Service Improvement Project for Paediatric Emergency Care, between Coventry University and University Hospitals Coventry & Warwickshire United Kingdom.

- The development of Paediatric Emergency Nurse Practitioners (PENPs) Coventry and Warwickshire United Kingdom.

Established Service

Drivers for Change

Evolution of New PENP Service
Background and Context

• General Practitioners (GPs) and Accident & Emergency services are the two most common routes through which children and young people are referred to specialist National Health Service (NHS) services in the UK

• Children make up approximately 40% of the workload of GP practice and approximately a quarter of Emergency Department (ED) attendances are Children and Young people under 19 years

• Incremental increase in the numbers of children attending ED in England by 34.5% (HSCIC 2013) and rising
Now estimated that in a typical year approximately 3.6-4 million children will present to Accident and Emergency Departments in England.
• Evidence suggests that parents seek medical advice from multiple sources such as
  • GP
  • Pharmacist /chemist
  • ‘Out of Hours’ Services
  • Increasingly presenting to Emergency Departments
  • Which is seen as a default position with the provision of 24 hour NHS service
  • Coupled with the desire for health problems to be addressed quickly (Kennedy 2012)

‘A study has found that the number of “under-15s attending casualty with routine medical complaints has increased by 42% over past decade,” reported The Guardian (2011). It said that “‘patchy’ out-of-hours services were to blame and parents felt they had no choice but to take their child to the local A&E unit’.
• Coventry and Warwickshire is no exception
• Estimated **30,000** children necessitated emergency care from the local NHS Trust (2011)
• Increasing to **30,828** 2012-2013
• Despite these many challenges this provided the opportunity to improve outcomes for children and young people requiring urgent unscheduled care across the locality.
The City of Coventry
Coventry is located in the West Midlands and is England’s 9th largest city, with a population of approximately 300,000+.

- Rich and diverse cultural heritage with the Irish being the oldest established ethnic group
- 72,000 children (approx) living in Coventry
- 25% of the population in Coventry are under 20 years
- Mixed health economy offered by GP and out of hours services, NHS and private health care
- Pharmacy services and over the counter products
An Established Service:
Children’s Emergency Department (CED) University Hospital
Coventry & Warwickshire (UHCW)

New build 2007 inclusive of dedicated Children’s Emergency Department (CED)
Historically no paediatric emergency nurse practitioners assessing/diagnosing/treating children within CED
Adult nurses successfully working within the adult emergency department
Usually designated band 6 as evident at other emergency units.
## Presentations to CED (Minors)

1. Soft tissue injury/sprains/fractures  (1,765)
2. Respiratory (VIW, asthma, URTI)  (1,746)
3. Blank (no data available)  (1,616)
4. Minor HI + Headache  (1,428)
5. Laceration  (1,268)
6. Diagnosis not classifiable  (1074)
7. Non-specific viral illness  (921)
8. Diarrhoea/gastroenteritis  (914)
9. ENT/Tonsillitis/Epitasis  (823)
10. Nothing abnormal/normal or Crying baby/Parents concerned  (664)
11. Abrasions/contusions (509)
12. Dermatology/Eczema/Rash (492)
13. Burns/Bites/Stings/Scalds (291)
14. Foreign Body (280)
15. Eye Conditions/conjunctivitis (211)
16. Allergy and local allergic reaction (183)
17. Seizures/febrile convulsions (180)
18. Urology/UTI and Cystitis (141)
19. Poisoning (O/D) (133)
20. Abdominal Pain (103)
21. (LAST BUT NOT LEAST)
   Constipation (87)

The above presentations evidenced the potential for the development of a bespoke programme of learning to develop Paediatric Emergency Nurse Practitioners.
Conservative Exclusions (will not/may not meet inclusion criteria).

- Cardiac conditions
- Central nervous system (not including strokes)
- Child protection
- Dental/traumatic loss of teeth
- Dislocations/amputation/Joint injury
- Nerve Injuries
- Diabetes
- Max Fax
- Moderate/Severe Head Injury
- Near Drowning
- Psychological conditions
- Haemophilia and other coagulopathy
- Miscellaneous others
Drivers for Change:
The Evidence

• Improve paediatric emergency care in light of changing need, demographics, cultural perspectives, epidemiology, social and healthcare scaffolding of childhood, policy drivers emerging technologies and advanced in medical science

• The role of emergency nurse practitioners role has been scrutinized (Sakr et al 2002,2003;RCN 2004; RCPCH 2011,NMCAC 2013 ) with emerging evidence substantiating the role further
• Nurse practitioners were noted as more proficient than junior doctors at recording medical history and there were fewer unplanned follow-up attendances regarding patients seeking advice.

• Kennedy (2012) states that at the heart of any system providing services for children and young people are the professionals.

• The NHS intends to respond to the needs of children, young people and families rather than expecting them to respond to the system.
• Children present very differently to adults particularly experiencing different and unique exposures and conditions which increase their vulnerability

• This coupled with dynamic developmental anatomy and physiology which may influence the presentation of disease/illness during childhood

• Potentially there can be blurring between ‘minor’ and ‘major’ as the child’s condition escalates
• It is further suggested that resident skilled Paediatric Emergency Nurse Practitioners have more knowledge regarding developmental A&P, specific childhood disease and treatment protocols, prescribing for children than junior emergency department doctors (who are transient-not resident).

• It seems very likely that ENP services will become more widespread throughout the UK

• This reflects the international model which is offered in countries such as Canada and the USA.
International Perspectives

Canada - instrumental in implementing one of the first nurse practitioner programmes in 1967
USA - followed an evolutionary shift from traditional nurse specialist roles to advanced practice
Silver et al (1968) detailed a programme for paediatric nurse practitioners
Nurse practitioner literature suggests that ‘no one size fits all’ model of Nurse Practitioners roles can be extrapolated and applied across services
Evolution of New PENP Service

- Acute sector was planning reconfiguration of services
- Funding made available from the local ‘Workforce Planning Board’ to establish autonomous Paediatric Emergency Nurse Practitioners in collaboration with Coventry University
- Consideration was given to the best available model of education and practice
Study Aim

• Develop a resident body of Paediatric Emergency Nurse Practitioners across the locality who engage in a bespoke programme of learning
Project Aims

1. Develop PENP role to assess, diagnose, treat and discharge/refer children with minor injuries/illness
2. Improve quality and ensure safety with a resident, skilled and educated body of nurse practitioners.
3. Utilise the advanced skills/knowledge of medical staff from the three local acute settings
4. Ensure timely access to treatment deploying PENPs at highlighted increased demand times
5. Provide senior medical staff with allocation of complex/seriously ill children as the department continues to operate effectively
Bespoke Programme of Learning

Health Assessment

Minor Injuries and Illness

Non-medical Nurse Prescribing (1)

Non-medical Nurse Prescribing (2)

PRACTICE- (Clinical Supervisor)
Key Requirements for Success

- Senior Nurses
- Paediatricians
- Management
- CPD students
- Academic Staff
- Coventry University

Combined provider provision
Student Practitioners Stated......

‘I feel that my assessment skills have greatly improved and I feel confident to assess, treat, plan care and discharge patients.

I am currently prescribing for children I assess and provide analgesia quickly without waiting for a doctor’.

‘I feel it is a very valuable course and the PENP role will greatly improve the care that the patients are receiving.

By being able to ‘see and treat’ minor injuries and illness the children are assessed and treated in a timely manner’.
• Practitioners have now completed their training (n=8)(2 non completers) and continuing..........
• Primary data demonstrates successful role adoption and autonomy
• Numbers of presentations to the department are steadily rising year after year.
• A significant proportion of those (>50%)(conservative estimate) are eligible to be seen by PENP for the entire care episode.
PENPs have demonstrated the success in terms of service development and enhancement coupled with professional development
Secondary outcomes. Child and parental feedback/user views (to be collated).
Now as a clinical role model for junior doctors who ask for advice and guidance.
Natural evolution to resident, permanent Paediatric Emergency Nurse Practitioners who enhance care delivery whilst maintaining standards and safety and driving the service forward
Summary

- There existed an anomaly that as a specialist emergency department (CED) there were no emergency nurse practitioners.
- In major centres, secondary, tertiary, regionally and nationally Paediatric Emergency Nurse Practitioners were employed.
- Notably within our locality other areas employed Emergency Nurse Practitioners (adult) to manage children, aged 0-16 yrs (Changing demographic >5yrs).
- Bespoke programme developed to prepare practitioners for an extended role working collaboratively.
Employment

• .....recruiting for a Paediatric Emergency Nurse Practitioner and our client is located in the popular Central London area.

• Responsible for the assessment of patients care needs and for the development, implementation and evaluation of programmes of care and treatment of their complex or potential problems.

The successful candidate will be expected to contribute to delivering the highest standard of care to all patients within the urgent care unit. You will be expected to work as part of an adept team, whilst still possessing the ability to work independently when required. All suitable applicants should meet the following criteria:

• 1st level NMC Registered Nurse (RN Child or RSCN)
• NMC Registration part 8 or 15
• Diploma/Degree in Nursing
• Post-Grad study relating to specialty
• At least 3 years post-grad experience as Paediatric Emergency Nurse Practitioner
• Trained in Paediatric Advanced Life Support (EPALS)
Closing Thoughts: The Way Forward

- Evaluative study to evaluate the quality and outcomes of service improvement
- Development of ‘Tool Kit’ and Competencies
- International interest in our model

Preparation: Preparing nurses for practice at the highest levels of our healthcare system
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References

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