

Editorial

Primary care management of acute illness in children

Sonia Saxena MBBS MSc MD FRCGP

Consultant Senior Lecturer in Primary Care, Department of Primary Care and Public Health, Imperial College London, UK

Acute illness in children is common and most children will consult a National Health Service (NHS) general practitioner (GP) three to six times a year.¹ The vast majority of acute illness in children will be managed in community settings, avoiding the need for unnecessary hospital contacts and emergency admissions to hospital.² Most acute illness consultations in children are for minor, self-limiting illnesses, and the likelihood of serious illness is less than 1%. In the post-Meningitis C and Prevenar era the risk of serious infection is decreasing, with reported rates of acute meningococcal and pneumococcal bacteraemia markedly falling.

Yet hospital admission rates have been rising for several years in many developed countries, particularly in children,² many of whom are admitted through emergency departments.^{3,4} The majority of admissions are due to short stay, isolated acute illness episodes and recent trends suggest there has been a 41% expansion in admissions lasting less than two days, with one in three infants now being admitted to hospital. In addition to inefficient and inappropriate use of health resources, lack of access to high quality primary care may impact on the future health of a child by 'overmedicalising' simple problems and reinforcing health seeking behaviour that results in multiple health contacts.⁵

In the UK, access to GPs has diminished since 2004 due to changes in the general practitioners' contract enabling 'opt-out' from responsibility for out-of-hours and emergency care. In addition, changes to the general medical services (GMS) contract mean that GPs are paid for focusing on chronic disease management in adults, shifting priorities away from provision of acute care for children.⁶ This has had a major impact on paediatric services in hospital accident and emergency departments (AEDs)⁷ that are already stretched and under pressure to achieve stringent waiting time targets, often resulting in inappropriate hospital admission.⁸

However, children's pathways are set to change dramatically with the introduction of GP-led polyclinics across London and nationally. A major review

of NHS services⁹ has led to the opening of 50 new polyclinics offering extended access to GPs for unscheduled care away from hospital AEDs, with the eventual aim that every primary care trust will have a polyclinic. Healthcare for London has estimated that this could reduce children's AED attendance by up to 15%.⁵ These centres vary in their staffing and organisational structures but a fundamental principle is that they offer access to GPs, have extended opening hours and aim to avoid over-investigation.

In addition to changes in the organisation of primary care, are there other factors that lead to acutely ill children being admitted to hospital? Parents often find it difficult to distinguish between trivial self-limiting illnesses and more serious conditions such as meningitis, and fear the worst when their child is unwell, especially when the child has a fever.¹⁰ They may require access to support, information and primary medical services in order to cope. Where this process fails, parents will seek alternative opinions, duplicating health contacts and increasing costs.

Can simple clinical assessment help GPs rule out serious illness? There is good evidence that cyanosis, rapid breathing, poor peripheral perfusion and petechial rash are all useful 'red flag' warning signs of serious illness.¹¹ Temperature greater than 40° centigrade is a good indicator of infection but its absence does not rule out serious illness. Although raised C-reactive protein levels have been identified as a valuable test for occult bacteraemia, this is unlikely to be of much use to busy GPs who need to make quick decisions about whether to refer for specialist assessment or bring children back to the surgery for review. Vital signs are useful in distinguishing between serious and self-limiting illness,¹² but there is evidence that GPs rarely monitor vital signs, preferring observation or a 'watchful waiting' approach.¹³ The NICE clinical guideline on feverish illness in children under five years¹⁴ offers a traffic light approach based on vital signs that is simple to follow in GP surgeries.

In this edition of LJPC, Nicky Coote's article 'Managing the unwell child' is a timely guide for all GPs, but

perhaps particularly for those working in polyclinics or out of hours centres who will increasingly be faced with acutely unwell children. The article offers practical advice about preparing the team to deal with acutely unwell children, key equipment for assessment and basic medicines to have available on site for emergencies. The clinical assessment tools are useful in assessing children and persuading parents of our objectivity. These go hand in hand with clinical skills acquired over time and key principles of GP care that are as important: providing access for parents to consult us when their child is unwell, offering continuity and safety netting. If we value our own contribution to keeping children out of hospital, we will serve families better and reduce the strain on hospital colleagues by managing acute illness in children in primary care.

REFERENCES

- 1 Hippisley-Cox J, Fenty J and Heaps. *Trends in Consultation Rates in General Practice 1995 to 2006: analysis of the QRESEARCH database*. Final report to the Information Centre and Department of Health. 2007.
- 2 Organisation for Economic Co-operation and Development. *Health at a Glance*. Paris, France: OECD, 2001.
- 3 NHS Institute for Innovation and Improvement. *Focus On: emergency and urgent care pathway for children and young people*. Coventry: NHS Institute for Innovation and Improvement, 2008.
- 4 Chief Nursing Officer's Directorate, Children, Families and Maternity Analysis. *Trends in Children and Young People's Care: emergency admission statistics, 1996–1997 to 2006–2007, England*. London: The Stationery Office, 2008.
- 5 Healthcare for London and Commissioning Support for London. *Meeting the Needs of Children and Young People: guide for commissioners*. London: Healthcare for London, 2009.
- 6 The NHS Confederation. *Investing in General Practice: the new General Medical Services Contract*. London: NHS Confederation, 2003.
- 7 Intercollegiate Committee for Services for Children in Emergency Departments. *Services for Children in Emergency Departments*. London: Royal College of Paediatrics and Child Health, 2007.
- 8 Mooney H. Admissions from emergency departments rise as four hour target approaches. *British Medical Journal* 2009;339:b4931.
- 9 NSR Implementation team. *High Quality Care for All: our journey so far*. London: Department of Health, 2009.
- 10 Kai J. What worries parents when their preschool children are acutely ill, and why: a qualitative study. *British Medical Journal* 1996;313:983–6.
- 11 Van den Bruel AF, Haj-Hassan TF, Thompson MF, Buntinx FF and Mant D. Diagnostic value of clinical features at presentation to identify serious infection in children in developed countries: a systematic review. *The Lancet* 2010;375: 834–45.
- 12 Thompson MF, Coad NF, Harnden AF, Mayon-White RF, Perera RF and Mant D. How well do vital signs identify children with serious infections in paediatric emergency care? *Archives of Disease in Childhood* 2009; 10.1136/adc.2009.159095.
- 13 Thompson MF, Mayon-White RF, Harnden AF, Perera RF, McLeod DF and Mant D. Using vital signs to assess children with acute infections: a survey of current practice. *British Journal of General Practice* 2008;58:236–41.
- 14 National Collaborating Centre for Women's and Children's Health and National Institute for Health and Clinical Excellence. *Feverish Illness in Children: assessment and initial management in children younger than five years*. London: NICE, 2007.

ADDRESS FOR CORRESPONDENCE

Dr Sonia Saxena
 Consultant Senior Lecturer in Primary Care
 Department of Primary Care and Public Health
 Imperial College London
 3rd Floor, Reynolds Building
 St Dunstan's Road
 London W6 8RP
 UK
 Tel: +44 (0)20 7594 0839
 Fax: +44 (0)20 7594 0866
 Email: s.saxena@imperial.ac.uk