Realigned networks will improve access for children to specialised paediatric trauma and orthopaedic services

Matching surgical expertise and capacity through aligned networks for children's trauma and orthopaedic services will strengthen pathways of care and the management of paediatric conditions, according to a new report from the Getting It Right First Time (GIRFT) programme.

The configuration of services through networks and pathways that fit the needs of children and their families is a key focus of the GIRFT paediatric trauma and orthopaedic report.

The report's author and GIRFT's clinical lead for paediatric trauma and orthopaedics, Mr James Hunter, carried out a review of the specialty based on data from 128 trusts across England and virtual visits to 127 of those trusts. His report recommends that paediatric orthopaedic networks should align their boundaries with the Surgery in Children Operational Delivery Networks (SIC ODNs), helping to better co-ordinate care.

This would improve the hub and spoke models allowing trusts access to experienced tertiary teams for complex interventions, whilst ensuring that more common conditions can be managed and delivered locally.

In addition, Mr Hunter advocates dual-surgeon operating, where a surgeon from a high-volume specialist centre works alongside a surgeon from a referring centre as part of a network, to help equity of access and preserve local expertise.

Mr Hunter said: "I am very conscious that centralisation of major operations would strip out the local service that is required for the bulk of paediatric orthopaedics and leave general T&O colleagues less well supported for specialist children's trauma. This is why we are recommending carefully thought-out network arrangements with input from high volume tertiary centres, accompanied by dual surgeon operating as potential solutions that do not disrupt the service."

Mr Hunter, paediatric trauma and orthopaedic surgeon at the Queen's Medical Centre, Nottingham, makes a total of 32 recommendations. His review found variation in pathways and workforce levels between hospitals, and his recommendations seek to ensure that:

- surgeons are better supported by networks and agreed pathways;
- that unnecessary and avoidable admissions or hospital visits for children are avoided;
- and that unwarranted variation in operation rates are understood and tackled.

A number of recommendations focus on improving the management of paediatric trauma cases. These include treating the more common, simple upper limb fractures in emergency departments, rather than onward referral to fracture clinics or admission for treatment in operating theatres on over-subscribed trauma lists. This will improve families' experiences while helping hospitals free up more theatre time.

The report also promotes the use of virtual fracture clinics for simple fractures, that avoid unnecessary hospital attendances, and help the NHS with the challenge of recovering services.

For complex fractures, the report asks trusts and networks to agree pathways and to review appropriate theatre access for paediatric trauma teams, including day case opportunities, to minimise operating delays and the chances for children to become unnecessary inpatient admissions.

Mr Hunter also identified that the potential to make changes to pathways could bring cost efficiencies between £3.46m and £4.67m per annum.

Acknowledging the multidisciplinary nature of the specialty, the report makes recommendations to support the wider paediatric T&O workforce, including ensuring there are adequate numbers of paediatric orthopaedic surgeons at major centres to allow outreach work, and having multidisciplinary teams with sufficient specialist physiotherapists, nurses and plaster staff to help manage simple and early treatments.

Mr Hunter found that the trusts with a mixed workforce tended to be those actively pursuing good practice models with all members of MDTs having the opportunity to maintain and develop their skills and experience in the specialty.

Mr Hunter said: “It is important we ensure that adequate numbers of paediatric orthopaedic surgeons be resourced at major centres, allowing outreach work, and that general treatment activity continues at all trusts to ensure MDTs maintain and develop skills and to prevent flow of simple cases to specialist hospitals.”

As well as the data analysis and recommendations, the report contains many case studies and vignettes describing innovative cost-effective practice which has already been introduced in Trusts around England. These provide templates for successful change that can easily be adopted and adapted to suit local needs.

Background notes

- Paediatric orthopaedics provides life-changing surgery and treatment to infants and children with conditions such as dysplasia of the hip (DDH) and club foot, as well as neuromuscular conditions such as cerebral palsy, spina bifida, and muscular dystrophy.
- Children’s trauma is mostly made up of simple fractures – 8,600 patients under 16 are seen every week in fracture clinics in England.
- However, nearly 6,000 children are admitted to hospital each year after femoral (upper leg) fractures

About the author

The report is authored by clinical lead for paediatric trauma and orthopaedic surgery, James Hunter. Mr Hunter is a paediatric trauma and orthopaedic surgeon at the Queen’s Medical Centre, Nottingham, where he has been a consultant since 1995. He is a past president of the British Society for Children’s Orthopaedic Surgery (BSCOS) and was the chairman of the AO International Expert Group for Paediatrics from 1997 to 2016. He was a member of the Specialist Advisory Committee from 2013 to 2019, latterly as the lead for national recruitment of specialists.

Report recommendations

The report makes 32 recommendations:

Recommendations to strengthen networks and pathways of care

1. Paediatric orthopaedic surgery should realign its networks with the operational delivery networks (ODNs) in surgery in children (SIC) to produce a robust system that results in trusts being supported by high volume providers.
2. Networks, working with member trusts, to review caseloads and activity, particularly for complex and low volume activity, and agree appropriate networked models of care.
3. Networks to determine approach to rare bone diseases.

Recommendations to improve the management of paediatric trauma cases

4. Implement pathways in trusts that support the treatment of simple fractures in ways that avoid children requiring admission and unnecessary hospital attendance. Common injuries to be treated in ED according to protocol with no or minimal follow-up.
5. Implement virtual fracture and orthopaedic clinics to minimise unnecessary patient journeys.
6. Ensure that surgeons treating children's fractures are experienced in appropriate methods.
7. Trusts to ensure facilities are available for appropriate procedures in clinic.
8. Networks to develop policies/guidelines for complex fractures.
9. Ensure that trusts audit lower limb fractures with a view to reduction in length of stay and to support early mobilisation and discharge.
10. All trusts to review local arrangements to ensure appropriate theatre access for paediatric trauma teams. This should include reviewing day case unit usage. The aim should be to minimise the chances that children become unnecessary inpatient admissions.

Recommendations to improve the management of standard paediatric orthopaedic conditions

11. Deliver early developmental dysplasia of hip (DDH) care in an efficient family friendly multidisciplinary format.
12. Review the national system of DDH screening.
13. Optimise operative interventions for late DDH.
14. Standardise club foot care and audit on a regional and national basis.
15. Standardise orthopaedic care in cerebral palsy to allow equality of care across England.
16. Reduce variation in the treatment and management of osteoarticular infection.
17. Optimise processes for managing variants of normal.

Recommendations to improve the management of paediatric orthopaedic lower limb procedures

18. Trusts to enhance facilities for day case knee, foot and ankle surgery in the under 16s.
19. Ensure satisfactory acute knee pathway for the under 16s to allow prompt and appropriate treatment.
20. Trusts to review numbers of common foot and ankle interventions.
21. Develop pathways for less common major interventions.

Recommendations to support the paediatric T&O workforce

22. Adequate numbers of paediatric orthopaedic surgeons to be resourced at major centres, allowing outreach work.
23. Activity at all trusts to be maintained to prevent flow of simple cases to specialist hospitals.
24. Paediatric orthopaedic surgeons to be supported by multidisciplinary team with sufficient specialist physios/nurses/plaster staff to permit local club foot and early DDH treatment and reduce waits, including management of variants of normal.
25. Training in paediatric T&O to be maintained for all orthopaedic registrars.
26. Paediatric orthopaedic trauma services to be enhanced at MTCs for children, possibly by combining staff with local children's hospitals.

Recommendations for strengthening audit, coding and review

27. Improve coding of inpatient procedures to give trusts and NHS England and Improvement sight of their activity.
28. Outpatient procedures should be appropriately coded, recorded and remunerated.
29. Ask NIHR to commission research on outcome measures and their suitability for use in paediatric T&O, with recommendations for routine collection of PROMs data.

Recommendations for reducing the impact of litigation

30. Implement specific recommendations to reduce litigation costs for paediatric T&O.
31. Reduce litigation costs by application of the GIRFT Programme's five-point plan.

Recommendations to improve device and consumables procurement

32. Enable improved procurement of devices and consumables through cost and pricing transparency, aggregation and consolidation, and by sharing best practice.

GIRFT background

Getting It Right First Time (GIRFT) is a national programme designed to improve the treatment and care of patients through in-depth review of services, benchmarking, and presenting a data-driven evidence base to support change. The programme undertakes clinically-led reviews of specialties, combining wide-ranging data analysis with the input and professional knowledge of senior clinicians to examine how things are being done and how they could be improved.

Working to the principle that a patient should expect to receive equally timely and effective investigations, treatment and outcomes wherever care is delivered, irrespective of who delivers that care, GIRFT aims to identify approaches from across the NHS that improve outcomes and patient experience, without the need for radical change or additional investment.

GIRFT is part of an aligned set of programmes within NHS England and NHS Improvement. Read more about the programme at gettingitrightfirsttime.co.uk