



North East and North Cumbria's Child Health and Wellbeing Network

The Facts of Life for children and young people growing up in the North East and North Cumbria:

Chapter 2 - Childhood illness and long-term conditions
September 2021

@NorthNetChild





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How illness is managed in our communities. The current level of A&E use and emergency admissions usually from our more disadvantaged communities is unsustainable. We need to think about paediatricians and primary care networks working together to develop triage pathways and manage childhood illness in community settings.

Chapter Two SPOTLIGHT to direct momentum for initiatives

2 Childhood illness and long-term conditions

2.1 Relevance

This chapter describes hospital admissions for children and young people in regard to acute illnesses and long-term conditions.

Emergency hospital care is only one part of a complex health and social care system serving children and families. It is affected by supply (availability and quality of services) and demand (the need or desire for services) factors.

Whilst access to primary care has been shown to have an impact on the number of A&E attendances, broader environmental and socioeconomic factors also shape health-seeking behaviours as well as admission behaviour e.g. higher neighbourhood deprivation has been associated with increased A&E attendances in both adults and children¹.

The six most common conditions resulting in the presentation for paediatric acute care are: bronchiolitis/croup, fever, gastroenteritis, head injury, wheezy child/asthma and abdominal pain².

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¹ Nuffield Trust (2017) Focus on: emergency hospital care for children and young people: link

² NHS Gloucestershire Clinical Commissioning Group. The big 6 most common conditions children present with to urgent care. Gloucester, 2014: <u>link</u>





The number of children and young people admitted to hospital is rising across the UK but there is a lack of evidence to recommend the best way to manage paediatric acute care and reduce avoidable admissions³. Hospital admissions are costly but also carry multiple personal costs to children, young people and their families e.g. disruption to family life, increased emotional distress and exposure to infections.

Preventive primary care can also play a key role in improving child health and reducing demand for avoidable emergency hospital admissions for both acute and chronic conditions⁴.

2.2 Commentary and findings

2.2.1 Emergency healthcare use

Children and young people account for 25% of emergency department attendances and are the most likely age group to attend A&E unnecessarily⁵. Children and young people from the most deprived areas are consistently more likely both to go to A&E and to need emergency hospital treatment than children from the least deprived areas⁶. Many of these attendances could be managed effectively in primary care or community settings⁷.

Emergency admissions and A&E attendances are included as a measure of healthcare need in an area, giving a picture of hospital activity across the life course of children and young people. This can be used to prompt further investigation into the causes of admissions and attendances.

³ Husk K et al. Interventions for reducing unplanned paediatric admissions: an observational study in one hospital. BMJ Paediatrics Open 2018; 2: e000235: link

⁴ BMC Medicine (2018) Impact of preventive primary care on children's unplanned hospital admissions: a population based birth cohort study of UK children 2000-2013 <u>link</u>

⁵ Nuffield Trust (2017) Focus on: emergency hospital care for children and young people: link

⁶ Nuffield Trust (2017) Admissions of inequality: emergency hospital use for children and young people: link

⁷ NHS England (2018) NHS Long term plan. Redesigning other health services for children and young people: <u>link</u>



similar

worse





				Clinical commissioning groups														
				North Cumbria North of Tyne and Gateshead Sunderland											Tees Valle			
	Period	England	Region	North Cumbria		Newcastle Gateshead	Northumberland		North Tyneside		County Durham		South Tyneside		Sunderland		Tees Valley	
A&E attendances (under 1 year) (Persons, <1 year, rate per 1000)	2018/19	1051.4	-	636.7		1615.0	1397.9		1629.5		-		2142.4		2652.9		-	
A&E attendances (0-4 years) (Persons, 0-4 years, rate per 1000)	2018/19	669.9	935.3	502.6	•	1072.4	898.1	A	1006.6	64	15.7	•	1315.3	A	1679.9	^	856.7	•
A&E attendances (under 18 years) (Persons, <18 years, rate per 1000)	2018/19	420.5	-	354.5	•	663.7	556.6	A	612.0		-		740.3	A	935.4	^	-	
A&E attendances (18-24 years) (Persons, 18-24 years, rate per 1000)	2019/20	453.6	544.0	470.7		538.6	622.2		743.0	39	97.7		691.2		581.3		589.5	

Figure 2.1 – A&E Attendances





- Where data is available most **North East and North Cumbria (NENC)** CCGs have significantly higher rates of A&E attendances across all age ranges compared to the England average. The only exceptions are **North Cumbria** and **County Durham**, though rates are increasing in **North Cumbria**.
- The highest rates are found in younger age groups, particularly in **South Tyneside** and **Sunderland**.



similar





				Clinical commissioning groups											
				North Cumbria		th of Tyne Gateshead			n, South Ty d Sunderla		Tees Valley				
				Cumbna		Jalesnead	J	an	Juliuella	ariu	valley				
	Period	England	Region	North Cumbria	Newcastle Gateshead	Northumberland	North Tyneside	County Durham	South Tyneside	Sunderland	Tees Valley				
Emergency admissions (rate per 1000 population) <1 (Persons, <1 yr)	2019/20	372.9 ▲	-	560.1 ▲	560.2 ▶	499.1 ▶	532.2 ▶	486.4 ►	339.4 ▶	375.4 ▶	619.4				
Emergency admissions (aged 0-4) (Persons, 0-4 yrs, Crude rate- per 1,000)	2019/20	164.9 ▲	1	263.7	253.2	247.0	269.6	209.3	158.0 ▶	197.0	270.4				
Emergency admissions under 18 years (Persons, <18 yrs, Crude rate- per 1,000)	2019/20	74.3 ▶	-	108.3	109.7	110.2	122.3	88.3	74.9	89.0 ▼	114.8				
Emergency admissions (aged 18-24) (Persons, 18-24 yrs, Crude rate- per 1,000)	2019/20	68.9	71.6	62.3	54.9	117.2	116.3	64.6	90.3	58.1	76.2				

Figure 2.2 – Emergency admissions





- Six of the eight **NENC** CCGs have significantly higher emergency admission rates in under 1 year olds than the England average, with rates of up to 619.4 emergency admissions per 1,000 in **Tees Valley**. Contrasting this, **South Tyneside** has a significantly lower rate than the England average whilst **Sunderland** has a rate similar to the England average.
- In children aged 0-4 and 0-17 emergency admission rates are significantly higher than the England average in all NENC CCGs other than **South Tyneside** which is similar to the England average for both age ranges.
- For young people aged 18-24 there is more variation. While the region as a whole has a significantly higher emergency admission rate than the England average, half the NENC CCGs have a significantly higher rate and half significantly lower.

Live indicators from this section can be viewed at https://fingertips.phe.org.uk/indicator-list/view/yarWnKAQHE





2.2.2 Acute illness

Hospital admissions for childhood infections reflect the complex interplay between prevention, need, health seeking behaviour and service provision.

Wider preventive care can play a key role. For example, childhood infections including gastroenteritis and lower respiratory tract infections (LRTIs) can be mitigated by health improvement and protection strategies including breastfeeding and vaccination⁸.

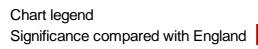
Emergency admissions for children with LRTIs is one of the key metrics included in the NHS Outcomes Framework. It is concerned with measuring how successfully the NHS manages to reduce avoidable emergency admissions for children with selected types of LRTI (bronchiolitis, bronchopneumonia and pneumonia)¹⁰.

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⁸ Thomas SL. Et al. (2017) Impact of the national rotavirus vaccination programme on acute gastroenteritis in England and associated costs averted. Vaccine 2017; 35(4): 680-6: link

⁹ Frank NM. Et al. (2019) The relationships between breastfeeding and reported respiratory and gastrointestinal infection rates in young children. BMC Pediatrics 2019; 339: link

¹⁰ NHS Digital (2021) NHS Outcomes Framework Indicators February 2021 release: link







				Clinical commissioning groups															
				North North of Tyne and Cumbria Gateshead								Durham, South Tyneside and Sunderland					le	Tee Valle	
	Period	England	Region	North Cumbria		Newcastle Gateshead	Calcolleda	Northumberland		North Tyneside		County Durham		South Tyneside		Sunderland		Tees Valley	
Admissions of babies under 14 days (Persons, <14 days, Crude rate- per 1,000)	2019/20	76.5 🔺	-	75.8	•	85.2	•	48.9	>	58.4	•	117.8	٨	38.3	١	36.8	•	92.3	•
Admissions for gastroenteritis in infants aged under 1 year (Persons, <1 yr, Crude rate- per 10,000)	2019/20	144.3 ▶	-	180.1	•	197.1	•	270.7	>	300.5	•	255.0	٨	185.1	•	214.5	Þ	321.6	•
Admissions for gastroenteritis in infants aged 1 year (Persons, 1 yr, Crude rate- per 10,000)	2019/20	93.1 ▶	-	180.1	▼	140.8	•	219.9	>	193.2	•	151.1	٠	92.6		160.9	•	218.7	٠
Admissions for gastroenteritis in infants aged 2, 3 and 4 years (Persons, 2-4 yrs, Crude rate- per 10,000)	2019/20	44.7 ▼	-	81.9	•	59.4	>	90.2	>	71.5	•	56.7	>	61.7	•	71.5	>	87.9	•

Figure 2.3 – Acute illness



worse

similar

better



				Clinical commissioning groups															
				North North of Tyne and Cumbria Gateshead								Durham, South Tyne and Sunderland							
	Period	England	Region	North Cumbria		Newcastle Gateshead		Northumberland		North Tyneside		County Durham		South Tyneside		Sunderland		Tees Valley	
Admissions for lower respiratory tract infections in infants aged under 1 year (Persons, <1 yr, Crude rate- per 10,000)	2019/20	684.6 🔺	1	1162.7	A :	1032.2	•	1082.8	•	1073.1	•	840.6	•	864.0	•	858.0	•	1177.1	A
Admissions for lower respiratory tract infections in infants aged 1 year (Persons, 1 yr, Crude rate- per 10,000)	2019/20	127.5 🔺	-	163.8	•	168.9	•	203.0	•	279.0	•	85.0	•	154.3	>	232.4	•	128.6	A
Admissions for lower respiratory tract infections in children aged 2, 3 and 4 years (Persons, 2-4 yrs, Crude rate- per 10,000)	2019/20	30.2 🛕	-	38.2	•	31.3	•	39.5	•	42.9	A	15.7	•	51.4	•	59.6	A	21.4	>

Figure 2.3 – Acute illness (continued)

At a locality level, the data indicate that on average:

• There is considerable variation across the **NENC region** in the emergency admissions rate of babies under 14 days with four CCGs having significantly lower rates than the England average, the lowest being in **Sunderland** (36.8 per 1,000





deliveries), but three CCGs having significantly higher rates than the England average, the highest being **County Durham** (117.8 admissions per 1,000 deliveries). Like the England average, **North Cumbria** shows a significant recent increasing trend in their admission rate, however, all other NENC CCGs show no significant changes.

- For gastroenteritis **South Tyneside** have similar emergency admission rates to the England average for all three age bands presented (under 1 year, 1 year and 2-4 years), and **North Cumbria** have a similar rate in under 1 year olds. All other CCGs and age bands have significantly higher rates of admission than the England average.
- For lower respiratory infections there is significant variation across the **NENC region**. While for under 1 year olds all NENC CCGs are higher than the England average (684.6 per 10,000), for older age groups the region is more varied:
 - In children aged 1 the emergency admission rate varies between **County Durham** (85.0 per 10,000), which is significantly lower than the England average (127.6 per 10,000), and **North Tyneside** (279.0 per 10,000) which is significantly higher.
 - In children aged 2-4, County Durham (15.7 per 10,000) is again significantly lower than the England average (30.2 per 10,000), with Sunderland (59.6 per 10,000) the highest.

Live indicators from this section can be viewed at https://fingertips.phe.org.uk/indicator-list/view/cZ9nhHrdck.





2.2.3 Long-term conditions

Three conditions - asthma, diabetes and epilepsy - account for 94% of emergency admissions for children under 19 years with long term conditions¹¹.

Emergency hospital admission rates for these conditions are included in the NHS Outcomes framework as indicators of how successfully the NHS is enabling a whole system approach to manage these conditions and prevent avoidable emergency hospital care. Clinical audit is a valuable pillar of care quality improvement.

Asthma

The UK has among the highest mortality rates in Europe for children and young people with the underlying cause of asthma¹². Asthma is most common condition in children and young people affecting 1 in 10 or 11 CYP in the UK. There is wide geographical variation in emergency asthma admission rates for children across the UK. Most emergency admissions are preventable, with high-quality management (including the use of asthma plans) and early intervention to address deterioration in control¹³.

The children and young people asthma audit, a component of the National Asthma and COPD Audit Programme (NACAP), is a continuous clinical audit with an episodic organisational audit component. It launched in June 2019 and captures the processes of care, clinical outcomes of treatment for children and young people admitted to hospital with asthma attacks. The most recent data found that 66.8% of children and young people admitted to hospital with asthma attacks presented with severe or life-threatening features of acute asthma, and 19.5% were so severely ill they required intravenous therapy¹⁴.

¹¹ NHS Digital (2021) NHS Outcomes Framework Indicators – February 2021 release: <u>link</u>

¹² RCPCH (2020) State of Child Health: link

¹³ Nuffield Trust (2017) Admissions of inequality: emergency hospital use for children and young people: link

¹⁴ NACAP: Children and young people asthma clinical and organisational audits 2019/20: link





similar





				Clinical commissioning groups North North of Tyne and Durham, South Tyneside Tees										
				North Cumbria		th of Tyne Gateshea			yneside and	Tees Valley				
	Period	England	Region	North Cumbria	Newcastle Gateshead	Newcastle Gateshead Northumberland		County Durham	South Tyneside	Sunderland	Tees Valley			
Admissions for asthma for children aged 0 to 9 (Persons, 0-9 yrs, Crude rate- per 100,000)	2019/20	192.8	-	213.8	251.7	266.9	349.6	210.8	207.4	286.5	215.8			
Admissions for asthma for young people aged 10 to 18 (Persons, 10-18 yr, Crude rate- per 100,000)	2019/20	119.0	-	117.8	195.2	214.0	214.4	146.0	238.6	202.9	184.4			
Admissions for asthma for young people aged 19 to 24 (Persons, 19-24 yr, Crude rate- per 100,000)	2019/20	103.1	116.1	55.6	63.9	175.5	173.0	90.6	208.0	151.9	175.8			

Figure 2.4 – Asthma





- For admissions for asthma for children aged 0 to 9 in **NENC** there is a notable geographical divide with all CCGs in the **North of Tyne and Gateshead ICP** having significantly higher rates than the England average but all other CCGs, except **Sunderland**, having rates similar to that of the England average.
- The majority of NENC CCGs have significantly higher rates of admissions for asthma for young people aged 10 to 18 than the England average (119.0 per 100,000). This is most notable in **South Tyneside** (238.6 per 100,000). **North Cumbria** (117.8 per 100,000) is the only CCG with a lower rate than the England average, but not significantly so.
- For 19 to 24 year olds rates of admission are lower in all CCGs than in 10 to 18 year olds, suggesting better management of their condition. In **Newcastle Gateshead** (63.9 per 100,000) the rate is significantly lower than the England average (103.1 per 100,000).





Diabetes

Diabetes is an increasingly common long-term conditions in children and young people. Type 1 diabetes constitutes the vast majority (90%) of diabetes in children. The prevalence of Type 1 diabetes is not linked with deprivation. Type 2 diabetes is less common in children and young people but is strongly associated with deprivation.

Poor management of diabetes in childhood can have severe long-term health implications and children and young people from deprived or black and minority ethnicity backgrounds are more likely to experience poorer diabetes control. The rate of emergency hospital admissions for type 1 diabetes is significantly higher for older children and young people. Among young adults (aged 15–19 and 20–24), emergency hospital admissions are increasing and the deprivation gradient is preserved. By contrast, there is no clear relationship with deprivation among young children (0–4 years and 5–9 years)¹⁵.

The national paediatric diabetes audit is performed annually in England and Wales to provide information that can inform care quality improvement. The most recent audit found inequalities relating to ethnicity and deprivation with black children and young people least likely to be using real time continuous glucose monitoring and those living in more deprived areas at higher risk of retinopathy, albuminuria, needing additional psychological support, and higher HbA1c levels¹⁶.

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¹⁵ Nuffield Trust (2017) Admissions of inequality: emergency hospital use for children and young people: link

¹⁶ RCPCH (2021) National Paediatric Diabetes Audit: link



similar





				Clinical commissioning groups											
				North Cumbria		th of Tyne Gateshea		Durham and	Tees Valley						
	Period	England	Region	North Cumbria	Newcastle Gateshead	Newcastle Gateshead Northumberland		County Durham	South Tyneside	Sunderland	Tees Valley				
Admissions for diabetes for children 0-9 (Persons, 0-9 yrs, Crude rate- per 100,000)	2019/20	27.6	-	45.8	36.0	31.4	*	26.4	*	33.7	36.0				
Admissions for diabetes for young people aged 10 to 18 (Persons, 10-18 yr, Crude rate- per 100,000)	2019/20	77.7	-	84.1	58.6	49.4	95.3	91.3	68.2	110.7	95.6				
Admissions for diabetes for young people aged 19 to 24 (Persons, 19-24 yr, Crude rate- per 100,000)	2019/20	102.8	122.7	139.1	111.8	117.0	173.0	101.9	*	126.5	164.8				

Figure 2.5 – Diabetes





- Where data is available for 0 to 9 year olds, all **NENC** CCGs have similar rates to the England average for admissions for diabetes, however this ranges from **County Durham** (26.4 per 100,000) to **North Cumbria** (45.8 per 100,000).
- For 10 to 18 year olds all NENC CCGs have similar rates to the England average, ranging from **Northumberland** (49.4 per 100,000) to **Sunderland** (110.7 per 100,000).
- Emergency admissions for diabetes are higher in the 19 to 24 age group than in the younger groups. For 19 to 24 year olds **North Tyneside** (173.0 per 100,000) and **Tees Valley** (164.8 per 100,000) both have significantly higher rates of diabetes admissions than the England average (102.8 per 100,000). The **NENC region** (122.7 per 100,000) also has a significantly higher rate than the England average.





Epilepsy

Epilepsy is the commonest significant neurological disorder affecting children and young people. It can be difficult to diagnosis due to the lack of a specific diagnostic test and so under and over diagnosis occurs. Even among those who have a diagnosis of epilepsy, up to a third continue to have seizures despite treatment. Epilepsy is associated with a higher risk of mental health problems. 37% of children with epilepsy have a co-existing mental health disorder, a higher prevalence than found in other long term childhood conditions. Not all emergency admissions to hospital for epilepsy or seizures are avoidable. However, there is evidence that education, support with epilepsy medications and emergency seizure management plans can reduce emergency admissions¹⁷.

High-quality epilepsy care requires a holistic approach that includes psychological and practical support in addition to medical expertise, plus early recognition and support of additional needs (including mental health and special educational needs)¹⁸.

The Epilepsy Quality Improvement Programme (EQIP) for children and young people is underpinned by a national organisational and clinical audit, Epilepsy 12. The latest results highlighted the need to provide more mental health screening and care for those CYP with epilepsy. Other identified concerns included long waiting times for crucial investigations such as EEG or ECG and opportunities to improve rates of referral to tertiary neurology services¹⁹.

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¹⁷ RCPCH (2020) State of Child Health: link

¹⁸ Nuffield Trust (2017) Admissions of inequality: emergency hospital use for children and young people: link

¹⁹ RCPCH (2021) Epilepsy12 audit: link







				Clinical commissioning groups											
				North Cumbria		th of Tyne Gateshea			yneside and	Tees Valley					
	Period	England	Region	North Cumbria	Newcastle Gateshead	Northumberland	North Tyneside	County Durham	South Tyneside	Sunderland	Tees Valley				
Admissions for epilepsy for children 0-9 (Persons, 0-9 yrs, Crude rate- per 100,000)	2019/20	95.1	-	106.9		141.3	164.5	96.6	177.8	101.1	131.9				
Admissions for epilepsy for young people aged 10 to 18 (Persons, 10-18 yr, Crude rate- per 100,000)	2019/20	56.9	-	67.3	78.1	65.9	119.1	54.8	68.2	73.8	75.1				
Admissions for epilepsy for young people aged 19 to 24 (Persons, 19-24 yr, Crude rate- per 100,000)	2019/20	58.6	65.7	111.3	47.9	87.8	86.5	34.0	156.0	75.9	54.9				

Figure 2.6 – Epilepsy





- The majority of **NENC** CCGs have significantly higher rates of admissions for epilepsy for children aged 0 to 9 than the England average (95.1 per 100,000), with rates highest in the region in **South Tyneside** (177.8 admissions per 100,000). The exceptions to this are in **North Cumbria**, **County Durham** and **Sunderland** with rates similar to the England average.
- For those aged 10 to 18 most NENC CCGs have rates similar to that of the England average (56.9 per 100,000). The exceptions to this are **Tees Valley** (75.1 per 100,000) and **North Tyneside** (119.1 per 100,000) both of which are significantly higher than the England average.
- For 19 to 24 year olds there is more variation across the region with **County Durham** (34.0 per 100,000) significantly lower than the England average (58.6 per 100,000), and **South Tyneside** (156.0 per 100,000) significantly higher.

Live indicators from this section can be viewed at https://fingertips.phe.org.uk/indicator-list/view/ADT7aTiG3k.





2.3 Commentary on network actions

Childhood illnesses are a priority for the network and long-term conditions are a priority of the NHS Long Term Plan that is the policy driver for the Transformation Programme within the network.

Initiatives related to this area include:

- Two successful NENC Asthma initiatives are part of the network's Integration Centre. BeatAsthma provides a standardised approach across secondary/primary care, schools and educating families and CYP and BReATHE (Beating Regional Asthma Through Health Education) is the program of education that embeds BeatAsthma.
- Beat Asthma (<u>www.beatasthma.co.uk</u>) and BReATHE initiative also reflect the values and ambitions that underpin the National Asthma Care Bundle which is part of the NHSEI CYP Transformation Programme, which the network delivers for the NENC.

https://www.england.nhs.uk/childhood-asthma/

https://www.england.nhs.uk/publication/national-bundle-of-care-for-children-and-young-people-with-asthma/

- The NENC Healthier Together website development (based on Home:: Healthier Together (what0-18.nhs.uk) is a region wide site and clinical repository for professionals and families relating to children's, (and potentially also maternal and mental health) guidance. This has been successfully implemented elsewhere and reduced the attendances for young people in urgent and emergency care settings. This initiative is also part of the networks integration centre and will be developed with the support of clinical leads and advisors from each of our 4 ICP geographies.
- The CYP Transformation programme has also funded work in our region for Spotting the deteriorating child initiatives which
 is being conducted in partnership across our region Great North Children's Hospital (Dr Emma Lim) in collaboration with
 Sunderland Royal Hospital (Dr Sarah Prudhoe) and James Cook University Hospital (Dr Jonathon Grimbley) with the
 support of AHSN NENC and Tony Roberts.





- Little Orange Book initiative developed by Newcastle Gateshead CCG and promoted by the network to spread across the
 region. It offers guidance to parents of young children (5 and under) on the top conditions that are seen in A&E but can
 usually be managed safely at home. <u>The Little Orange Book</u> is also being developed into an App by colleagues on the Tees
 Valley.
- The network works closely with other networks reducing duplication and connecting with others' work. The Children and Young People's North East and North Cumbria (CYPDNENC) Diabetes Network supports the work of 13 children and young people's multi-disciplinary teams/delivery units within eight Trusts around the region. It has partnered with the network on specific projects in relation to poverty proofing in clinical teams, health education support and their children and family groups.
- The network is also conducting two time limited pieces into Transitions and Epilepsy. Clinicians are leading this work, which will conclude its first phase in spring 2022.

For any further information and proposals on initiatives relating to childhood illnesses do contact the network via england.northernchildnetwork@nhs.net and the website Child Health and Wellbeing Network | North East and North Cumbria ICS.





2.4 Relevant key policy and research papers

Unplanned admissions

Nuffield Trust (2017) Focus on: emergency hospital care for children and young people https://www.nuffieldtrust.org.uk/files/2018-10/1540142848_qualitywatch-emergency-hospital-care-children-and-young-people-full.pdf

Nuffield Trust (2017) Admissions of inequality: emergency hospital use for children and young people. https://www.nuffieldtrust.org.uk/files/2017-12/nt-admissions-of-inequality-web.pdf

Health services

CQC (2014) Children's transition to adult health services https://www.cqc.org.uk/sites/default/files/CQC_Transition%20Report.pdf

RCPCH (2018) facing the future: standards for children with ongoing health needs https://www.rcpch.ac.uk/sites/default/files/2018-04/facing_the_future_standards_for_children_with_ongoing_health_needs_2018-03.pdf

NICE (2016) NICE guideline NG43 Transition from children's to adults' services for young people using health or social services https://www.nice.org.uk/guidance/ng43

NHS England (2018) NH Long term plan. Redesigning other health services for children and young people https://www.longtermplan.nhs.uk/online-version/chapter-3-further-progress-on-care-quality-and-outcomes/a-strong-start-in-life-for-children-and-young-people/

Epilepsy

NICE (2021) Clinical Guideline CG137. Epilepsies: diagnosis and management https://www.nice.org.uk/guidance/CG137





RCPCH (2021) Epilepsy12 audit https://www.rcpch.ac.uk/resources/epilepsy12-national-organisational-audit-clinical-audit-2021

Healthy London Partnership (2018) London epilepsy standards for Children and Young People https://www.healthylondon.org/wp-content/uploads/2018/05/London-epilepsy-standards-for-children-and-young-people-May-18.pdf

Healthy London Partnership (2016) London epilepsy guide for schools https://www.healthylondon.org/wp-content/uploads/2017/11/London-epilepsy-guide-for-schools.pdf

Hargreaves et al. Association of quality of paediatric epilepsy care with mortality and unplanned hospital admissions among children and young people with epilepsy in England: a national longitudinal data linkage study. Lancet Child Adolesc Health 2019; 3(9): 627-35 https://pubmed.ncbi.nlm.nih.gov/31281027/

Diabetes

NICE (2020) NICE guideline NG18 Diabetes (type 1 and type 2) in children and young people: diagnosis and management https://www.nice.org.uk/guidance/ng18

RCPCH (2021) National Paediatric Diabetes Audit https://www.rcpch.ac.uk/work-we-do/quality-improvement-patient-safety/national-paediatric-diabetes-audit/

Healthy London Partnership (2015) London guide for teachers and parents of children and young people with diabetes https://www.healthylondon.org/wp-content/uploads/2017/11/Children-and-young-peoples-diabetes.pdf

Asthma

NICE (2021) NICE guideline NG80 Asthma: diagnosis, monitoring and chronic asthma management. https://www.nice.org.uk/guidance/NG80





Healthy London Partnership 2020. London asthma standards for children and young people https://www.healthylondon.org/wp-content/uploads/2020/09/HLP-Asthma-standards-1.pdf

NACAP: Children and young people asthma combined clinical and organisational audit 2019/20 https://www.rcplondon.ac.uk/file/30056/download

2.5 Technical note

This chapter contains five new indicators based on Hospital Episode Statistics (HES) data at new age ranges to complement indicators in Fingertips. These indicators are based on the CCG of responsibility for the admission or A&E attendance, and have been constructed in accordance with the latest HES analysis guidance²⁰. The new indicators are:

- A&E attendances (18-24 years)
- Emergency admissions (18-24 years)
- Admissions for asthma for young people aged 19-24 Emergency admissions only
- Admissions for diabetes for young people aged 19-24 Emergency admissions only
- Admissions for epilepsy for young people aged 19-24 Emergency admissions only

Full definitions are available on request.

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²⁰ https://digital.nhs.uk/data-and-information/data-tools-and-services/data-services/hospital-episode-statistics/users-uses-and-access-to-hospital-episode-statistics