



Royal College of
Paediatrics and
Child Health

Supporting Paediatricians to Develop Quality Indicators

January 2010

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Leading the way in Children's Health

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1. Introduction

Quality improvement is recognised as a key principle in the safe delivery of health care in the UK. Recent policy documents (Department of Health, 2010 and 2008a; Scottish Government, 2010) have called for quality to become the key organising principle of the NHS. To drive quality improvement, ambitious objectives have been set for the measurement and reporting of quality. Clinical quality can be defined as having the three dimensions:

- Patient safety - reducing avoidable harm associated with healthcare
- Patient experience - compassion, dignity, respect and wider measures of patient experience
- Effectiveness of care - clinical outcome measures such as mortality or survival rates, patient-reported outcomes measures (PROMs).

Furthermore, there is recognition that improvement in clinical care is linked to financial performance, as poor quality costs money. Given the current financial climate there is an increased emphasis on improvement which also increases productivity.

In order to deliver sustainable change in an organisation as large as the NHS, it is necessary to work with the front-line staff to develop good practice. Change will require cultural transformation at all levels. If the challenge to deliver quality and productivity is to be met, it needs to have leadership at regional and local level and an appreciation of the methodologies needed to achieve sustainable change. The development of quality improvement as a key driver in healthcare delivery has become prominent in the past few years. Six key domains of quality have been recognised:- safety, effectiveness, efficiency, timeliness, equity and patient centeredness. Allied to the principles of quality is the recognition that healthcare needs to adopt methodologies from other industries to implement change. This will require training and development for existing paediatricians and trainees.

The provision of accurate information on appropriate, evidence-based and meaningful measures is essential to empower teams to facilitate continuous improvement in children's services. Inadequate measurement and reporting systems often result in lost opportunities for improvement. As part of the quality agenda, from 2009, NICE expanded its role into developing new national quality standards, built on the National Services Frameworks, and filling in any gaps in current national standards. The DH established a National Quality Board to oversee the work to improve quality measurements and advise on the priorities for clinical standards set by NICE. The National Quality Board provides an annual report on quality in the NHS which draws upon the measurement of clinical

quality reported locally. NICE developed quality standards for four pilot topics, one of which is neonatal services.

In addition to these national indicators, local NHS organisations will be expected to develop their own measurements of quality that are relevant to the services they provide. Guidance on Measuring for Quality Improvement by the Department of Health (2008b) suggests that the Royal Colleges, along with Specialist Associations, will play a key role in supporting the development of indicators. Continual improvement requires ongoing measurement - not necessarily to make judgements about care, to provide information and understanding of how to improve.

From 2010 healthcare providers in England are required to publish annual Quality Accounts. These will provide information on the quality of all clinical services provided - covering the three dimensions of safety, experience and outcomes. It is envisaged that there will be a hierarchy of complementary clinical indicators with alignment between those used at clinical team level, those used by provider organisations and reported in their quality accounts, and those used at regional and national level. Following the election of the coalition government in May 2010 and the subsequent White Paper publication (DH, 2010), it is likely that Quality Accounts will evolve to focus on content emerging from outcome measures and NICE quality standards. Furthermore it is likely that Quality Accounts will be extended to primary and community care providers.

2. Project remit

The increasing emphasis on quality measurement offers a real opportunity for improvement in the quality and safety of children's services, but this is dependent on two aspects, firstly the development of appropriate, meaningful measures, and secondly on subsequent improvement in practice. RCPCH have therefore sought to develop this guidance, together with a proposed set of indicators for use in children's services. The intention is that that they will inform the development of indicators at a regional and local level, and support and motivate paediatricians in developing local dashboards and quality accounts. This is not intended to be a complete set of indicators but rather the start of a process of developing standards and quality indicators in paediatrics and child health. The indicators serve as examples as to what it is possible to develop.

2.1 Methodology

Measurement is a critical part of testing and implementing changes. Measures tell a team whether the changes being made actually lead to improvement. Measures need to be meaningful to those collecting them and should be as real time as possible. *Outcome Measures* indicates what happens to the patient and how the system is performing. *Process Measures* tell one if the parts/steps in the system are performing as planned. *Balancing Measures* look at the system from different directions/dimensions and tell if improving one part of the system causes new problems in other parts of the system.

The indicators have been developed according to the following principles:

- Indicators should be balanced between the three dimensions of safety, patient experience and outcomes.
- Outcome measures should be based on important clinical outcomes as much as possible, but proxy measures of outcome will be considered where good evidence supports them.
- Priority should be given to indicators that give evidence of the overall quality of a clinical pathway or network, rather than a single component of the service.
- Measures are based on information that is currently collected as part of the process of care, or can be readily made available; wherever possible measures will be based upon existing good practice.
- Indicators should help to measure ongoing improvements in practice and should be used as part of a quality improvement process. They are not intended to be used as a method of comparing one service with another or to provide evidence of attainment (or not) of a given standard.
- Data to populate measures should be available on a regular basis.
- Some indicators should be available for early introduction, but there are opportunities to develop new, better measures through further work - this is particularly important for patient (or carer) reported outcomes.

The indicators have been developed by;

- A review of existing College publications and relevant literature to identify any existing standards in paediatrics.
- Email consultation with clinical leads and specialty groups on existing evidence and initial ideas for indicators.
- Two workshops with invited clinicians and stakeholders (see appendix 1) to develop quality indicators in acute and community paediatrics.
- A small working group (see appendix 1) reviewed the complete range of indicators that had been identified or proposed, and prioritised those areas and indicators which best fitted the principles outlined above. It was recognised that not all indicators could be included at this stage and therefore selected pathways were identified. Neonatal care was excluded as this is now included within the NICE quality standards.
- Lay representation was sought throughout the process.
- Consultation took place with key stakeholders (see Appendix 1) on the refined set of indicators. The comments and suggestions made were reviewed by the working group and changes incorporated where possible.
- Prior to final publication the indicators were piloted by 3 services, reflecting specialist, general and community paediatrics, and feedback from these sites used to revise the quality indicators.

3. Quality Indicators

Developing indicators where there is a limited evidence base for quality, and where there are problems in terms of data collection presents considerable challenges. The indicators have been developed to fulfil two roles. Firstly, from a quality assurance perspective, to answer the question, “Is the service being provided to an adequate standard?” In this role, they could form part of the quality accounts of trusts providing children’s services. Secondly they are intended to support quality improvement, answering the question, “Are

interventions improving the quality of service?”. In this situation, they can be included in clinical dashboards used with individual services.

An initial series of indicators is proposed. Each indicator is made up of a group or “bundle” of measurements (metrics). They are grouped into service area bundles or pathway bundles, with the intent that collectively these will provide an indicative measure of the quality of a service. For each bundle, there are a series of quality statements, supported by evidence where possible. For standards where there is no evidence, but the view of stakeholders and the working group was that this indicator was valid, the indicator has been derived by consensus. Each standard has an associated measurement method. These indicators were developed to be used to assess the whole service. They are not intended to be used to assess the performance of individuals, or individual parts of a service.

It is important to stress that this publication is very much the beginning of a process, and not a definitive statement on all measures for all services. The report is designed to give paediatricians an approach to the development of measures which should then provoke reflection in learning, and its approach may be of as much use as the specific indicators outlined. There is a mix of acute and community focused indicators, however where possible the indicators should be applied throughout a pathway of care. As such, it is recognised that the range of indicators do not encompass all children’s services. Hence, there is huge potential for further indicators to be developed. The omission of indicators does not reflect a lack of priority for a given service. It should be noted that neonatal services were specifically excluded as NICE have already developed quality indicators in this area.

The menu of indicators should be used by services as appropriate. It is not envisaged that any service would use all of them, but rather would select the most important, or those that will best help improve the quality of a service.

3.1 How do I use the RCPCH Quality Indicators?

Each service will need to consider whether the service area bundles and pathway bundles are all relevant to the services they provide. It is anticipated that the menu of indicators are potentially applicable to almost every service and organisation that cares for children. However, services should consider which indicators will be most helpful in terms of improving quality of care.

The choice of quality indicators is to be decided a local level; however there will be considerable potential benefits if all services collect a common set of indicators. In particular opportunities for benchmarking and comparison of quality will only be possible if services collect the same information in the same way.

For many long-term conditions, achievement at school and reduction in missing school may be more relevant outcomes, particularly where there is limited evidence-base for the measures of long-term condition management.

3.2 How do I collect the data?

For many of the indicators, measurement is suggested using a rapid quality review – this is likely to involve reviewing 10 or up to 20 sets of sequential notes – this provides a relatively quick insight into how a service is ‘performing’ for a given indicator. Should the results be good (e.g. 90% or above) then a quality review based on 20 case notes could be repeated on a quarterly basis. However should the review indicate less satisfactory performance, action to undertake improvements should be taken followed by another rapid quality review. The quality review, based on 10 sets of case notes, should then be repeated at regular intervals determined by the previous performance and the nature of the metric, until consistently good performance is achieved.

For any individual indicator there is to be a mix of metrics. Metrics from rapid quality reviews will be collected at different intervals, depending on performance and the focus for quality improvement interventions. Other metrics will be collected on a continuous basis, e.g. staff rotas and staff training records. These should be charted on a monthly or quarterly basis. Metrics based upon patient surveys may only be available annually. A limited number of metrics reflect standards that can either be achieved or not. These will be assessed from evidence of the attainment of that standard on at least a quarterly basis. A few metrics are derived from expected clinical audits.

For quality improvement, it is important to move the mindset away from one-off measurements towards continual review and revision. This involves using improvement methodology of assessing the problem, setting an aim, deciding on the change required, and then measuring the impact of the change implemented. Small tests of change using Plan-Do-Study-Act (PDSA) cycles is a methodology that allows for rapid improvement that can become sustainable.

The data is best illustrated using Statistical Process Control (SPC) charts – either a run chart or a control chart, which has upper and lower control limits. SPC charts determine whether a change to a process has resulted in an improvement. These charts allow for the assessment of normal variation and special cause variation as opposed to bar or pie charts which are static. They can confirm that a change has resulted in real change as opposed to the change being normal variation in the system. There are numerous resources available which may help, including *The How-to Guide for Measurement for Improvement* (Patient Safety First <http://www.patientsafetyfirst.nhs.uk>).

3.3 What do I do next?

It is key that one does not measure for the sake of measurement. In quality improvement, measurement is used to determine the next change required for improvement; small tests of change are the foundation. The next step is to work out the priorities for your unit and to develop a quality improvement programme. Start small – with something that can be measured and for which a change can be implemented. When this has been done it can be spread and one can move on to the next priority.

The measures or indicators shown in this document are an illustration of what can be done and how we intend to improve in the future. The basic principles can be applied to different conditions and one can develop these as part of an ongoing programme.

4. RCPCH plans for the future

RCPCH would welcome feedback on indicators which have proved to be most useful, and those which have not been used either for practical (difficulties in collecting data) or other reasons.

This work is part of the RCPCH Strategy for Quality Improvement. Following its publication, the impact of this document will be evaluated which in turn will influence whether further work is undertaken in this area. It is recognised that there is a need to co-ordinate the parallel work that may be in progress at a specialty level.

A. Service area bundles			
1. For a high quality Emergency Department:			
Quality Statement	Evidence	Metric	Measurement method
The environment and facilities accommodate the needs of children and their families as far as possible.	Services for Children in Emergency Departments (RCPCH, 2007)	Evidence of one or more dedicated paediatric clinical cubicles or trolley spaces for every 5000 annual child attendances	Number of paediatric cubicles/ annual child attendances
		Co-location of ED with inpatient unit or PAU	Confirmation of on-site inpatient unit or PAU
		Evidence that the ED department employs a play specialist to cover peak hours including weekends	Number of hours of play specialist employment per week
All children receive, as a minimum, a brief clinical assessment by a competent and appropriately trained nurse or doctor within 15 minutes of arrival.	Brief clinical assessment should identify serious illness or injury using a standardised system	Percentage of children presenting to ED who have documented in their notes that a clinical assessment occurred within 15 minutes of arrival using a standardised system (such as the Manchester Triage System) to identify serious illness or injury.	Rapid quality review of patients' notes
Brief clinical assessment should identify serious illness or injury using a standardised system			
Hospitals should subscribe to the Trauma Audit and Research Network (TARN).		Submission of data to TARN and TARNlet	Evidence of submission of data to TARN and TARNlet
There is a nominated lead consultant responsible for child protection within the ED and access to child protection advice 24 hours a day		Evidence that there is a named lead consultant for safeguarding children	Confirmation of named consultant
		Evidence of on call access arrangements to 24 hour paediatric Child Protection advice.	Evidence of on call arrangements and CP on call rota
All medical and nursing staff are trained in paediatric basic life support.		Proportion of staff trained in paediatric basic life support (PILS/PLS for ED nursing staff; and APLS/EPLS for Senior trainees and consultants in EM, paediatrics and anaesthetics dealing with acutely unwell children).	Staff training records
There is a culture of integrated working between the ED and relevant primary and secondary care services.		Notification to primary care (GP and health visitor/school nurse) of the child's attendance at any urgent care setting	Rapid quality review of patients' notes.
Positive patient experience	Consensus	% of patients & families who would recommend the service	Patient survey

2. For high quality inpatient care			
Quality Statement	Evidence	Metric	Measurement method
Competent nursing staff are always available	Information Centre indicator	% of shifts on inpatient paediatric wards with at least one paediatric trained nurse	Nursing rotas
		% of nursing staff trained in paediatric life support	Staff training records
Competent medical cover is always available	RCPCH Service Standards	Every child who is admitted to a paediatric department with an acute medical condition must be seen by a paediatrician on the middle grade or consultant rota within 4 hours of admission	Rapid quality review of patients' notes
		Every child or young person who is admitted to a paediatric department with an acute medical problem must be seen by a consultant paediatrician (or equivalent staff, speciality and associate specialist grade doctor who is trained and assessed as competent in acute paediatric care) within the first twenty four hours.	
	Information Centre indicator	% of medical staff trained in paediatric life support	Staff training records
Appropriate ward environment for children and young people	Children's NSF, DH 2003	% of children admitted to a dedicated paediatric environment	Rapid quality review of patients' notes
An appropriate observation system, such as PEWS is always utilised	Consensus	% of patients observed using PEWS (or agreed equivalent)	Rapid quality review of patients' notes
There is a minimisation of unexpected deterioration of patients	Consensus	Number of crash calls that originate from low dependency areas. Exclude Intensive Care, High Dependency Care, Neonatal Intensive Care and Emergency Departments	Number of crash calls per patient discharge. (These are relatively rare events, therefore all calls should be recorded)
Patients are discharged when clinically appropriate in accordance with a completed discharge plan	Consensus	Clinically appropriate plan complete on discharge	Rapid quality review of patients' notes
Children receive an appropriate intravenous fluid regime for their age and weight.	Consensus	% of patients with serum sodium less than 128 during admission	Rapid quality review of patients' notes
Medication is prescribed and dispensed correctly	Consensus	% of medication errors due to weight calculation errors	Rapid quality review of patients' notes or clinical audit

3. For a high quality child protection service			
Quality Statement	Evidence	Metric	Measurement method
All children should be able to access child protection services with competent staff	Safeguarding Children and Young people: roles and competences for health care staff (RCPCH, 2010)	% of hours within a week of which there is availability of child protection advice via phone or on site	Evidence of hours of availability
		Named doctor with relevant training and experience	Staff records
		% of paediatric staff trained in child protection to Level 3	Training records
	Child Protection Companion (RCPCH, 2006)	% of review meetings attended by a consultant paediatrician.	Meeting minutes
The service should provide timely and appropriate examination and follow-up; 1. Physical injury should be seen, if at all possible, on the same day 2. Acute sexual assault examination should be completed as soon as possible. 3. Non-acute sexual abuse should be seen at the first available appointment and usually within a week.	Child Protection Companion (RCPCH, 2006)	Response time from referral to CP examination	Rapid quality review of patients' notes
		Time between examination and report sent	Rapid quality review of patients' notes
Assessment of a child should be undertaken by a paediatric consultant, associate specialist, staff grade or specialist registrar who is working under consultant supervision.		% of cases examined by a paediatric consultant, associate specialist, specialty doctor or specialist registrar who is working under consultant supervision	Rapid quality review of patients' notes
In children under 2 where physical abuse is suspected, a full skeletal survey should always be performed.	Standards for radiological investigation of suspected non-accidental injury (RCPCH and RCR, 2008)	Proportion of under 2s with suspected physical abuse who have a skeletal survey examination.	Rapid quality review of patients' notes
The environment should be child friendly, with access to appropriate support, including nursing/medical support, laboratory (haematology, microbiology), radiology and medical photography.	Consensus	% of returns from patient survey that agree care environment is child friendly.	Patient survey
The service must ensure effective interagency working and communication	Consensus	% of strategy discussions at which a paediatrician is present	Rapid quality review of discussion notes
		% of case conferences at which a paediatrician is present	Rapid quality review of patients' notes

B. Pathway bundles			
1. In a high quality service, for children under 5 presenting with feverish illness:			
Quality Statement	Evidence	Metric	Measurement method
All children have a full set of measurements taken as part of the routine assessment	Feverish Illness in children clinical guideline (NICE, 2007).	% of children presenting with fever who have temperature, heart rate, respiratory rate and capillary re-fill time assessed and recorded in their notes.	Rapid quality review of patients' notes
All children are assessed for the presence or absence of symptoms and signs that predict the risk of serious illness using the NICE traffic light system or other appropriate tool.		% of children presenting with fever assessed, using an appropriate assessment tool, for the presence or absence of symptoms and signs that predict the risk of serious illness.	Rapid quality review of patients' notes
All children with feverish illness at high risk of serious illness (but not immediately life threatening) are urgently assessed by a health professional within 2 hours. High risk is defined as having any of the red features listed in the NICE guideline traffic light system.		% of children at high risk (but not critically ill) are assessed by a health professional within two hours of presentation.	Rapid quality review of patients' notes
All children with feverish illness discharged home are provided with a safety net. Definition of safety net: <ul style="list-style-type: none"> • providing the parent or carer with verbal and/or written information on warning symptoms and how further healthcare can be accessed • arranging further follow-up at a specified time and place • liaising with other healthcare professionals, including out-of-hours providers, to ensure direct access for the child if further assessment is required. 		% of cases where it is recorded that written information about fever, further care at home and how to seek further help is provided to parents of children discharged with a fever.	Rapid quality review of patients' notes
All children (over 3 months) with fever without apparent source and at high risk of serious illness have the appropriate investigations performed.		% of children presenting with fever assessed as high risk who have had all of the following investigations performed: <ul style="list-style-type: none"> • Full blood count • blood culture • C-reactive protein • urine testing for urinary tract infection 	Rapid quality review of patients' notes

2. In a high quality service for children presenting with a head injury			
Quality Statement	Evidence	Metric	Measurement method
<p>All children presenting to an emergency department with a head injury should be assessed by a trained member of staff within a maximum of 15 minutes of arrival at hospital.</p> <p>Part of this assessment should establish whether they are high risk or low risk for clinically important brain injury and/or cervical spine injury.</p>	<p>Head injury - Triage, assessment, investigation and early management of head injury in infants, children and adults clinical guideline. (NICE, 2007)</p>	<p>For children presenting to an emergency department with a head injury, percentage assessed:</p> <ul style="list-style-type: none"> • by a trained member of staff • within 15 minutes of arrival • for high risk or low risk for clinically important brain injury and/or cervical spine injury 	Rapid quality review of patients' notes
<p>Computed tomography (CT) imaging of the head is performed within 1 hour of the request having been received by the radiology department in those patients where imaging is requested.</p>		% of children for whom imaging has been requested, who have this performed and results analysed within 1 hour of the request being received	Rapid quality review of patients' notes
<p>Children under 10 years of age with a Glasgow Coma Score (GCS) of 8 or less have CT imaging of the cervical spine within 1 hour of presentation or when they are sufficiently stable.</p>		% of children aged under 10 with a GCS≤8 receiving CT imaging of the cervical spine within 1 hour of presentation or when they are sufficiently stable?	Rapid quality review of patients' notes
<p>All children with a head injury requiring hospital admission are admitted under the care of a team led by a consultant who has been trained in the management of this condition during his/her higher specialist training.</p>		% of consultants admitting children with head injury who have had relevant training	Assessment of training background in conjunction with consultant rotas
<p>Minimisation of mortality following admission for traumatic brain injury</p>		Consensus	% of traumatic brain injuries that result in post admission mortality

3. In a high quality service for children presenting with asthma:			
Quality Statement	Evidence	Metric	Measurement method
Services should minimise emergency admissions for children with diagnosed asthma.	Consensus	% of asthma patients who have been admitted as an emergency for asthma-related conditions.	Rapid quality review of patients' notes
Each service should have established a registry or database of all asthma patients.	Consensus	Number of children with asthma who are not listed on a registry or database for that condition.	Audit of asthma service
There is appropriate treatment planning including structured care protocols detailing bronchodilator usage, clinical assessment and specific criteria for safe discharge in use.	British Guideline on the Management of Asthma (BTS and SIGN, 2009)	Use of structured care protocols which detail bronchodilator usage, clinical assessment and specific criteria for safe discharge.	Evidence of structured care protocol for service
		% of patients with an asthma plan discussed with the patient and family.	Rapid quality review of patients' notes
There is appropriate discharge of patients once their condition can be safely managed in a community setting.	Consensus	% of patients being readmitted within 1 week of discharge following admission for acute asthma presentation.	Rapid quality review of patients' notes
There is participation in the BTS paediatric asthma national audit and commitment to improvement.	Consensus	Contribution to BTS paediatric asthma audit.	Evidence of audit returns
The impact on school attendance of diagnosed asthma should be minimised.	Consensus	% of days absent from school.	Possible to derive data from CHIMAT

4. In a high quality service for children presenting with diabetes			
Quality Statement	Evidence	Metric	Measurement method
Appropriate clinical management of children diagnosed with diabetes.	Consensus	% of patients diagnosed with diabetes, who are later admitted due to Diabetic Ketoacidosis (DKA).	Rapid quality review of patients' notes (may be able to use HES if DKA coded accurately)
Each service should have established a registry or database of all diabetes patients.	Type 1 diabetes: diagnosis and management of type 1 diabetes in children, young people and adults (NICE Clinical Guideline 15, 2004) Making Every Young Person with Diabetes Matter (DH, 2007)	Number of children with diabetes who are not listed on a registry or database for that condition.	Audit of diabetes service
All children and young people with diabetes should have ongoing access to a local integrated multidisciplinary children's diabetes team (Paediatrician with an interest in diabetes/paediatric endocrinologist, diabetes specialist nurse, paediatric dietician with diabetes expertise).		% of patients with diabetes being discussed at a local MDT in the past year.	Rapid quality review of patients' notes.
Clear pathways for transition of care should exist, where necessary, between paediatric and adult care.		Any patient in transition from paediatric to adult care should have a defined and agreed plan for handover of care coordinated by a named key worker.	Rapid quality review of patients' notes.
Should monitor and minimise the potential for secondary complications. Specifically children and young people with type 1 diabetes should be offered screening for: <ul style="list-style-type: none"> • coeliac disease at diagnosis • thyroid disease at diagnosis and annually thereafter until transfer to adult services • retinopathy annually from the age of 12 years • microalbuminuria annually from the age of 12 years • blood pressure annually from the age of 12 years. 		% of patients with Type 1 diabetes screened for secondary conditions on a timescale in accordance with NICE guidelines.	Rapid quality review of patients' notes
Every clinic providing diabetes care for children and young people should be able to provide audit data on HbA1C.		Proof of HbA1C audit with % of HbA1c above the agreed standards (Annex D of 2004 NICE guideline).	Percentage HbA1C above the agreed standards
Patient care should be audited against NICE guidance for children with type 1 diabetes.		% of patients audited against NICE guidance (Annex D of 2004 guideline).	Evidence from audit returns
The impact on school attendance of diagnosed diabetes should be minimised.	Consensus	% of days absent from school due to condition.	Possible to derive data from CHIMAT

5. In a high quality service for children presenting with ADHD			
Quality Statement	Evidence	Metric	Measurement method
Each service should have established a registry or database of all ADHD patients.	Consensus	% of ADHD patients listed on registry	Audit of ADHD service
All parent/carers of pre-school children with ADHD, are offered a referral to a parent-training/education programme as the first-line treatment if the parents or carers have not already attended such a programme or the programme has had a limited effect.	Attention deficit hyperactivity disorder clinical guideline (NICE, 2009)	% of parents with children under 5 referred to a parent training/education programme	Rapid quality review of patients' notes
The diagnosis of ADHD is made on the basis of: <ul style="list-style-type: none"> • a full clinical and psychosocial assessment of the person including discussion about behaviour and symptoms in the different domains and settings of the person's everyday life, and • a full developmental and psychiatric history, and • observer reports and assessment of the person's mental state. 		% of children whose diagnosis has been made on: <ul style="list-style-type: none"> • a full clinical and psychosocial assessment • a full developmental and psychiatric history, and • observer reports 	Rapid quality review of patients' notes
When a decision has been made to treat children or young people with ADHD with drugs, healthcare professionals should consider: <ul style="list-style-type: none"> • methylphenidate for ADHD without significant comorbidity • methylphenidate for ADHD with comorbid conduct disorder • methylphenidate or atomoxetine when tics, Tourette's syndrome, anxiety disorder, stimulant misuse or risk of stimulant diversion are present • atomoxetine if methylphenidate has been tried and has been ineffective at the maximum tolerated dose, or the child or young person is intolerant to low or moderate doses of methylphenidate. 		% children on appropriate medication % of cases in which there is a record in the notes of discussion of side effects and contraindications	Audit of prescribing
The impact on school attendance of diagnosed ADHD should be minimised.	Consensus	% of days absent from school due to condition	Possible to derive data from CHIMAT

References

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- DH (2010) *Liberating the NHS*.
- DH (2008a) *High Quality Care for All*.
- DH (2008b) *Guidance on Measuring for Quality Improvement*.
- Information Centre quality indicators:
(<https://mqi.ic.nhs.uk/PerformanceIndicatorChapter.aspx?number=1.02>)
- NICE (2004) *Diagnosis and management of type 1 diabetes in children, young people and adults clinical guideline*.
- NICE (2007) *Feverish Illness in children clinical guideline*.
- NICE (2007) *Head injury - Triage, assessment, investigation and early management of head injury in infants, children and adults clinical guideline*.
- NICE (2009) *Attention deficit hyperactivity disorder clinical guideline*.
- RCPCH (2006) *Child Protection Companion*.
- RCPCH (2007) *Services for Children in Emergency Departments*.
- RCPCH and RCR (2008) *Standards for radiological investigation of suspected non-accidental injury*.
- RCPCH (2010) *Safeguarding Children and Young people: roles and competences for health care staff*.
- Scottish Government (2010) *The Healthcare Quality Strategy for NHS Scotland*.

Appendix 1. Membership of working group and workshops

Small working Group

Ted Baker (Chair)	Consultant Paediatrician
Bee Brooke	Acting Head of Health Services, RCPCH
David Shortland	Officer for Workforce Planning/RCPCH VP Health Services
Peter Lachman	Consultant Paediatrician, Royal Free Hospital
Rita Ranmal	RCPCH Clinical Effectiveness Coordinator
Susan Mitchell	Head of Health Policy, RCPCH

Pilot Sites

We would like to thank the pilot sites, who with great enthusiasm, piloted the quality indicators and provided constructive feedback;

- Alder Hey Children's NHS Foundation Trust
- Wrightington, Wigan and Leigh NHS Foundation Trust
- Croydon PCT

Workshop attendees

Belinda Bateman	Young Peoples Health SIG
Rimi Bhatia	Clinical Lead, Central Cheshire PCT
Mitch Blair	Consultant Paediatrician
Keith Brent	Consultant Paediatrician
Pamela Cairns	Consultant Paediatrician, UBH
Johnny Cardwell	Consultant Paediatrician, focusing on young people's health
Rachel Cooke	RCN
John Chang	Clinical Lead, Mayday University Hospital, Surrey
Karen Davies	Royal College of Speech and Language Therapy
Adrian Dighe	Audiology SIG
Jacinta Dunlea	Acting Lead Nurse, Lister Hospital
Lesley Dustagheer	Senior Nurse/Matron Acute Children's Services
Sue Eardley	Healthcare Commission, now CQC
Susan Edees	Clinical Lead, Royal Berkshire Hospital, Berkshire
Jennifer Evans	Colleague of Colin Powell
Christantha Halahakoon	Consultant Paediatrician, Wolverhampton
Jane Hawdon	Member, RCPCH PIMM Committee
Chris Hobbs	Child Protection Standing Committee, RCPCH
Karen Horridge	Chair, RCPCH Neurodisability CSAC
Dalijit Hothi	Paediatric Nephrologist, GOSH
Andrea Holder	Healthcare Commission, now CQC
Minoo Irani	Member, RCPCH PIMM Committee
Dipak Kanabar	Acting Chair, RCPCH General Paediatric CSAC
Lisa Kauffman	Member, RCPCH PIMM Committee
Peter King	RCN
Simon Lenton	VP Health Services, RCPCH
David Low	Chair, RCPCH Informatics Committee
Ian Maconochie	Chair of Emergency Medicine Specialty Group
Jugnu Mahajan	Member, RCPCH PIMM Committee
Roddy McFaul	Consultant Paediatrician
Kate McKay	Rep for Scotland
Nadeem Moghul	Consultant Paediatrician, Nephrology
Imogen Morgan	Clinical Lead, Birmingham Women's Hospital
Wendi Murphy	DH
Cliona Ni Bhrolchain	Member BACCH
Tony O'Sullivan	Consultant Community Paediatrician, Lewisham PCT, London
Linda Partridge	Member RCPCH PCAG Committee - parent and carer rep
Fawzia Rahman	Consultant Paediatrician, Derby
Dilini Rajapakse	Consultant Paediatrician, GOSH
Jane Ritchie	Rep, Community CSAC
Viji Rundran	Clinical Lead, Hertfordshire
Alu Shade	Clinical Lead, Croydon PCT
David Stacey	RCPCH Paediatricians in Medical Management Committee
Briar Stewart	Alder Hey Children's Hospital
Moira Stewart	Officer for Ireland, RCPCH

Diane Swindlehurst	Head of Midwifery, Greater Manchester, Children, YP and Families Network
Maria von Hilderbrand	Member, RCPCH Parents and Carers Advisory Group
Avril Washington	Chair, British Paediatric Mental Health Group
Mary Wheeler	Consultant Paediatrician, King's Lynn
Jane Williams	Chair, Childhood Disability Special Interest Group
Ingrid Wolfe	Research Fellow, London School of Hygiene and Tropical Medicine
Jane Woollard	Consultant Community Paediatrician, Alder hay