National Institute for Health and Care Excellence

Urinary Tract Infection in infants, children and young people under 16

Quality Standard Consultation Comments Table

Stakeholder	Statement No	Comments	Responses
Royal College of General Practitioners	General	It seems very good and the comparison with outcomes valid.	Thank you for your comment.
Rotherham, Doncaster and South Humber NHS Foundation Trust	General	We do however have a role in signposting these children appropriately if they have a temperature over 38 which would be usual practice. Those working with children who have had diagnosis of a U.T.I or those staff made aware of such a diagnosis need to be aware that the family should have received information advising them how to recognise reinfection. The Children's Continence Nurse Specialists work closely with Paediatricians in managing those children and young people with U.T.I's and need to be aware of up to date guidance.	Thank you for your comment, which was taken into account by the QSAC when producing the final version of the quality standard. The expectation is that this quality standard, alongside the NICE clinical guideline 50, will help to promote awareness. Quality statement 4 of the final quality standard also relates to information giving to help children and their parents/carers to recognise a reinfection.
Alder Hey Children's NHS Foundation Trust	Suggested additional draft quality statement suggested for Section 2, page 3, overview	To add a quality statement on how to obtain urine samples and gold standard of UTI diagnosis ie mc/s	Thank you for your comment and suggestions for additional quality statements. The Quality Standards Advisory Committee (QSAC) acknowledged the importance of urine sample collection but agreed this did not meet the criteria for development as a quality statement, in terms of requiring improvement and measurability. These areas are still supported by the underlying clinical guideline.
British Association for Paediatric Nephrology	General	This quality standard does not include a measure of timeliness of treatment. This is an important omission as there continues to be variability in commencing antibiotics when	Thank you for your comments. NICE quality standards provide a concise set of statements designed to drive and measure priority quality improvements within a

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		children have reasonable clinical and urine testing evidence of a UTI. The quality standard does not include any reference to investigations after a UTI.	particular area of care. So while there are no specific statements relating to treatment or further investigations, the statements are expected to improve the quality of this. The quality standard has been updated to highlight the reference to treatment and investigations.
British Association for Paediatric Nephrology	Quality Statement 1	The collection of an uncontaminated urine sample is essential for the diagnosis of UTI but can be difficult in some children. This is relevant to both dip testing and laboratory culture. There is anecdotal evidence of great variability in practice and, furthermore, there is variability in the speed with which samples are transported to the laboratory. Two ongoing studies are likely to provide very useful information regarding the diagnosis and management of children with UTI: 1.The HQIP funded multisite audit on Childhood UTI is looking comprehensively at the standards of care delivery in children with UTI; auditing across primary, secondary and tertiary care as well as Microbiology standards derived from the NICE guideline. 2. The HTA funded DUTY study is designed to develop a diagnostic algorithm for the detection of UTI in preschool children in primary care. Both these studies are expected to report within 12 months. As these quality standards apply to general practice as well as secondary care it is important to recognise the practical difficulties faced in achieving this standard. It is unclear what monitoring process can be implemented across all health care settings to measure the achievement of this standard. **Appropriate health care outcome:** a reduction in children with delayed diagnosis	Thank you for your comment, which was taken into account by the QSAC when producing the final version of the quality standard. The QSAC acknowledged the importance of urine sample collection but agreed this did not meet the criteria for development as a quality statement, in terms of requiring improvement and measurability. These areas are still supported by the underlying clinical guideline. The quality measures aim to improve the structures and processes of care that are considered to be linked to outcomes, as well as specifying outcomes directly where the QSAC felt able to define these. It is expected that the process measures described in the quality standard will contribute to improvements in diagnosis of UTI as described.

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		of UTI, leading to a reduction in the number of children requiring admission for pyelonephritis. **What is not covered:** The quality standard does not adequately recognise the importance of a correctly collected urine sample.	
British Association for Paediatric Nephrology	Quality statement 4	A patient information leaflet is being developed as a joint BAPN/RCPCH/BKPA project (InfoKid) and will contain the information required. It is unclear how the availability of these leaflets can be made known to all health care practitioners who encounter children with UTI and it is unclear how the attainment of this standard can be measured across all health care settings. **Appropriate health care outcome**: earlier diagnosis of UTI	Thank you for your comment. The aim is to highlight education and information as an area for improvement for UTI and to provide a starting point for this to happen at local level.
British Infection Association	Quality statement 3	With reference to the quality standard requiring us to formally identify coliforms in urine, the only reference that NICE gives is Nephrology 2005;10,377-381. The paper is entitled "Polymorphisms of the angiotensis converting enzyme and angiotensis II type I receptor genes and renal scarring in non-uropathic children with recurrent Urinary tract infections" This study was of only 97 children. The microbiology methods merely state "bacteriological investigations were performed using standard laboratory techniques". None of the authors are microbiologists. Many labs, for many years called all lactose fermenting coliforms "E. coli" without formal i.d. and whilst many of them would have been E. coli, others would have been other LFCs. There is no saying whether or not the lab who did the micro for this study did formal i.d.	Thank you for your comment. The quality standards are based on recommendations from the source guidance (NICE CG50) and do not have a remit nor seek to reassess or redefine the evidence base and therefore this is out of scope for this group. This question would be addressed as part of the guideline review process.

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		In other words, this study which was designed to look at something completely non-microbiological, has been extrapolated unscientifically to promote an expensive and time-consuming requirement to formally i.d. coliforms and make it a "quality standard" to boot! It is just not robust enough evidence to force us down this road.	
Department of Health	General	It would be useful to put the Quality Standards up for an early review to take account of the HQIP audit which is due to report within the next 12 months (see comments submitted by the British Association for Paediatric nephrology for further information).	Thank you for your comments which have been noted.
Health Protection Agency	Quality statement 3	Please be advised of the below feedback from a UK Standards for Microbiology Investigations viewpoint is: "Infants, children and young people with a urinary tract infection caused by coliform bacteria have results of microbiology laboratory testing differentiated by Escherichia coli (E.coli) or non-E. coli organisms. " The UK Standards for Microbiology Investigations, B 41 - Investigation of Urine does not recommend reporting of differentiation between of coliform into Escherichia coli (E.coli) or non-E. coli organisms in cases of urinary tract infections in infants, children and young people. This will be recommended at the next review of B 41 so that it can be brought in line with the NICE quality standard.B 41 (or any of the UK Standards for Microbiology Investigations) is not prescriptive about reporting of antibiotics	Thank you for your comment, which has been noted by the QSAC when producing the final version of the quality standard.

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		leaving it down to local decision. We have sent this consultation onto The Head of the Primary Care Unit at the HPA who would be able to advise on this area.	
NHS Sheffield	Table 4 (page 16)	If stick testing is positive but urine culture is negative should the child be told they have or have not had a UTI?	Thank you for your comments. This advice would be set out in the underpinning clinical guideline.
NHS Sheffield	Quality statement 1	Sampling within 24hrs is going to be a real headache for primary care given the sample collection systems we currently have in place. The QS should reference the process for collection of a urine sample especially in the younger child.	Thank you for your comment, which was taken into account by the QSAC when producing the final version of the quality standard.
NHS Sheffield	Quality statement 2	The guidance is also a little unclear about previous UTIs needing investigating. How many? Differences between sexes etc	This statement draws on an underpinning recommendation in the NICE clinical guideline and is intended to highlighted improvements in the process of recording of risk factors, rather than offer detailed advice underneath each of the risk factors.
NHS Sheffield	Quality statement 3	What do we do differently in relation to the management of a child with an E coli UTI?	Thank you for your comment. Please refer to the rationale and supporting information for this quality statement and also the detail within the NICE clinical guideline 50.
Rotherham, Doncaster and South Humber NHS Foundation Trust	Quality statement 4	We would recommend the inclusion of preventive advice and signposting to appropriate medical care when a child or young person presents with unexplained fever - e.g quality statement 4 could read: *All parents should be given information on how to recognise possible urine tract infection and when to seek medical advice.*	Thank you for your comment, the quality statement has been updated to reflect your suggestion on making this link clearer.
Royal College of Nursing	General	The Royal College of Nursing welcomes these draft quality standards. There are no further comments to make on this document on behalf of the RCN.	Thank you for your comment.

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Royal College of Paediatrics and Child Health	General	This quality standard does not include a measure of timeliness of treatment. This is an important omission as there continues to be variability in commencing antibiotics when children have reasonable clinical and urine testing evidence of a UTI.	Thank you for your comments. The quality standard has been updated to highlight the reference to timely treatment with antibiotics. The expectation is that the quality statements will be read alongside existing guidance.
Royal College of Paediatrics and Child Health	Quality Statement 1	The collection of an uncontaminated urine sample is essential for the diagnosis of UTI but can be difficult in some children. This is relevant to both dip testing and laboratory culture. There is anecdotal evidence of great variability in practice and, furthermore, there is variability in the speed with which samples are transported to the laboratory. Two ongoing studies are likely to provide very useful information regarding the diagnosis and management of children with UTI: 1.The HQIP funded multisite audit on Childhood UTI is looking comprehensively at the standards of care delivery in children with UTI; auditing across primary, secondary and tertiary care as well as Microbiology standards derived from the NICE guideline. 2. The HTA funded DUTY study is designed to develop a diagnostic algorithm for the detection of UTI in preschool children in primary care. Both these studies are expected to report within 12 months. As these quality standards apply to general practice as well as secondary care it is important to recognise the practical difficulties faced in achieving this standard. It is unclear what monitoring process can be implemented across all health care settings to measure the achievement of this standard. **Appropriate health care outcome:** a reduction in children with delayed diagnosis	Thank you for your comment, which was taken into account by the QSAC when producing the final version of the quality standard. The QSAC acknowledged the importance of urine sample collection but agreed this did not meet the criteria for development as a quality statement, in terms of requiring improvement and measurability. These areas are still supported by the underlying clinical guideline which the quality standard is derived from. The quality measures aim to improve the structures and processes of care that are considered to be linked to outcomes, as well as specifying outcomes directly where the QSAC felt able to define these. It is expected that the process measures described in the quality standard will contribute to improvements in diagnosis of UTI as described.

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		of UTI, leading to a reduction in the number of children requiring admission for pyelonephritis. **What is not covered:** The quality standard does not adequately recognise the importance of a correctly collected urine sample.	
Royal College of Paediatrics and Child Health	Quality statement 2	The checklist suggested is laudable but there are doubts that such an exhaustive list will be applied across all health care settings, especially as many children present to busy primary care practitioners. It is also unclear if the checklist is applied at each presentation and what monitoring process can be implemented across all health care settings to measure the achievement of this standard. It is also a problem that when the child is assessed for fever > 38°C this could be due to a number of aetiologies. The diagnosis of UTI may not be confirmed for several days. It could be suggested that these risk factors should be identified at a follow up –either primary (not all will be followed up in secondary care) or secondary care after diagnosis has been made. **Appropriate health care outcome:** Increased number of children identified to have UTI secondary to presence of risk factors; fewer investigations performed in those without risk factors.	Recording of risk factors as an ongoing process has been highlighted as an area for improvement to support onward investigations where appropriate and the quality measure supporting this statement is intended to act as a starting point for local improvement, in line with local data collection and practices.
Royal College of Paediatrics and Child Health	Quality statement 4	A patient information leaflet is being developed as a joint BAPN/RCPCH/BKPA project (InfoKid) and will contain the information required. It is unclear how the availability of these leaflets can be made known to all health care practitioners who encounter children with UTI and it is unclear how the attainment of this standard can be	Thank you for your comment. The aim is to highlight education and information as an area for improvement for UTI and to provide a starting point for this to happen at local level.

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		measured across all health care settings. **Appropriate health care outcome**: earlier diagnosis of UTI	
Royal College of Pathologists	Quality statement 1, draft quality measure (page 5)	It will be very hard to determine the denominator for this measure which is the number of children presenting with a fever of >38C. In the large paediatric hospital that I work in children presenting with fever is a considerable part of the work we do. It will be very difficult to get an accurate reporting number for the number of children that presented with a fever. Also there will been issue where the child may not have a fever at presentation because they have received anti-pyretics, however may have had a previous fever and a urine sample should be sent. The use of the term “unexplained” also introduces further ambiguity and thus will make it very difficult to perform this quality measure in reality. I think that this quality measure is too difficult to use in reality because of the fact that it will have to be set up prospectively and will take a considerable amount of time. More importantly, in view of the variation between centres, we do not see any clinical utility to this.	Thank you for your comment, which was taken into account by the QSAC when producing the final version of the quality standard. The supporting measures are intended to provide a starting point for local improvement.
Royal College of Pathologists	Quality statement 2, draft quality measure (page 7)	Again I feel that this measure is very time consuming to put in place. It will require a list of all UTIs (as defined by what criteria) to be produced in the laboratory each day. A member of staff will then have to go around to the medical notes and try to ascertain if risk factors were asked for. The depth of questioning is likely to vary considerably also in each notes. How many risk factors of the 12 outlines would it be necessary for the doctor to ask about in order to get included in the numerator? I think that this is too difficult	Thank you for your comment, which was taken into account by the QSAC when producing the final version of the quality standard. Recording of risk factors as an ongoing process has been highlighted as an area for improvement to support onward investigations. The quality measures supporting this statement is intended to act as a starting point for local improvement, in line with local data collection and practices.

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		to make workable in a paediatric hospital. More importantly, in view of the variation between centres, we do not see any clinical utility to this.	
Royal College of Pathologists	Quality statement 3, draft quality measure (page 9)	This is measure it is objective and can be done in retrospect using a laboratory information system.	Thank you for your comment.
Royal College of Pathologists	Quality statement 3, draft quality measure (page 9)	We are not convinced that this is a useful standard. The statement made that E coli should be differentiated from non e coli is based on limited evidence. Evidence is given that permanent renal damage is more common in those presenting with recurrent UTI and/or non E coli UTI. UTI due to Non E coli is classed as an atypical UTI. The NICE guideline recommends that children with atypical UTI have an ultrasound during the acute infection. One reference (224) is given for the discussion about the recommendation for recurrent UTIs Nephrology 2005;10, 377-381. The paper is entitled "Polymorphisms of the angiotensis converting enzyme and angiotensis II type I receptor genes and renal scarring in non-uropathic children with recurrent Urinary tract infections" This study was of only 97 children and none of the authors are microbiologists. The microbiology methods merely state "bacteriological investigations were performed using standard laboratory techniques". None of the authors are microbiologists. Many labs, for many years called all lactose fermenting coliforms "E. coli" without formal identification and whilst many of them would have been E. coli, others would have been other lactose	Thank you for your comment. The quality standards are based on recommendations from the source guidance (NICE CG50) but do not seek to reassess or redefine the evidence base and therefore this is out of scope for this group.

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		fermenting coliforms. There is no saying whether or not the laboratory who did the micro for this study did formal identification. One reference (88) is given for the discussion on atypical UTI. Relationship between acute pyelonephritis, renal scarring, and vesicoureteral reflux. Results of a coordinated research project. Orellana P, Baquedano P, Rangarajan V, Zhao JH, Eng ND, Fettich J, Chaiwatanarat T, Sonmezoglu K, Kumar D, Park YH, Samuel AM, Sixt R, Bhatnagar V, **Padhy AK**. Pediatr Nephrol. 2004 Oct;19(10):1122-6. Epub 2004 Jul 16. This study was of 147 females and 122 males and was not specifically set up to look at the effect of different organisms and the level of scarring. The work was done in many different laboratories in many different countries None of the authors in this paper are microbiologists. Please note the comment above that many laboratories for many years called all lactose fermenting coliforms "E. coli" without formal identification and whilst many of them would have been E. coli, others would have been other lactose fermenting coliforms. New methodologies such as the Malditoff are identifying organisms which would have been identified as E. Coli previously as something else. We are not convinced that fully sensitive E coli need to be differentiated from other fully sensitive lactose fermenting coliforms. We would recommend that non lactose coliform	

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		bacteria such as Proteus sp or Pseudomonas species should be identified, [to species level would probably suffice] and also organisms that are resistant for two or more agents such as trimethroprim, coamoxy clavulanic acid cephalexin . This measure would however be more difficult to quantify	
Royal College of Pathologists	Quality statement 4, draft quality measure (page 12)	The problem with this is that the level of quality of information will vary considerably between hospitals. There is also an issue that this item could simply be a box-ticking exercise on discharge rather than a meaningful conversation and relay of information between the hospital and the patient.	Noted, although the aim is to highlight this as an area for improvement and to provide a starting point for this to happen. The expectation is that this would always be part of an informed discussion with the child and parent/carer.