

Infection prevention and control:  
catheter maintenance

## **Clinical audit tool**

Implementing NICE guidance  
(primary and community care)

2012



This clinical audit tool accompanies the clinical guideline: '[Infection: prevention and control of healthcare-associated infections in primary and community care](#)'.

**Issue date:** 2012

This document is a support tool for clinical audit based on the NICE guidance. It is not NICE guidance.

## **Acknowledgements**

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- Paul Gilliatt, Clinical Audit Manager, Northumberland Tyne & Wear NHS Foundation Trust
- Catherine Edge, Community Matron/Senior Clinical Nurse, Northumberland Tyne & Wear NHS Foundation Trust

NICE has adapted the action plan template produced by the Healthcare Quality Improvement Partnership (HQIP) in their [template clinical audit report](#).

## **National Institute for Health and Clinical Excellence**

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## Infection prevention and control clinical audit tool

This document can be used as a starting point for a local clinical audit project that **aims** to reduce infection by improving catheter maintenance. It contains:

- clinical audit standards
- a data collection form
- an action plan template.

The audit standards and data collection form can be adapted to focus on a smaller part of the tool or expanded to include other local priorities.

The audit could be carried out in the following **services**:

- primary care settings, such as general practices, dental clinics, health centres and polyclinics
- ambulance services
- community care, such as residential/nursing homes, patients' homes, schools and prisons.

The audit should involve clinical and non-clinical **stakeholders**, which may include nursing staff, medical staff, paediatric staff, ambulance staff, dental staff, clinical audit staff, patients and carers.

The audit **sample** should include people in primary care or community settings who use a catheter. Advice on how to decide on sample size is available on [HQIP's website](#).

The **audit standards** are based on the NICE clinical guideline for Infection prevention and control. In developing this tool consideration has been given to the clinical issues covered by the guideline and the potential challenges of data collection. There may be other recommendations within the guideline suitable for the development of audit standards or an audit project.

A [baseline assessment tool](#) is available. This can help to compare practice with the guideline's recommendations and prioritise implementation activity, including clinical audit.

The audit standards in this document include a reference to the guideline **recommendation numbers**, and any associated NICE quality standard statements and **exceptions**. Exceptions not explicitly referred to in the guideline can be added locally, for example, patients declining treatment.

NICE recommends **compliance** of 100%. If this is not achievable an interim local target could be set, although 100% should remain the ultimate aim.

A **data collection form** should be completed for each patient contact. There is a section for demographic information that can be completed if this information is essential to the project. Patient identifiable information should never be recorded.

The data collection form should be completed after each relevant patient contact or, if possible, by an observer during the patient contact. It could be used by the healthcare professional managing the patient's catheter or by the patient or their carer if they are responsible for managing the catheter.

Following the audit the **action plan template** can be used to develop and implement an action plan to take forward any recommendations made.

**Re-audit** is a key part of the clinical audit cycle, required to demonstrate that improvement has been achieved and sustained. Once a re-audit has been completed, the [shared learning database](#) can be used to share the experience of putting NICE guidance into practice.

For **further information** about clinical audit refer to a local clinical audit professional in your own organisation or the [HQIP website](#).

To **ask a question** about this clinical audit tool, or to **provide feedback** to help inform the development of future tools, please email [auditsupport@nice.org.uk](mailto:auditsupport@nice.org.uk)

## Standards for Infection prevention and control clinical audit

Audit standards	Guidance reference	Exceptions	Definitions
<b>Catheter maintenance</b>			
<p><b>Indwelling catheters should be connected to a sterile closed urinary drainage system or catheter valve.</b></p> <p>[See data collection form, question 1]</p>	1.2.5.1	None	None
<p><b>Healthcare workers should ensure that the connection between the catheter and the urinary drainage system is not broken.</b></p> <p>[See data collection form, question 2]</p>	1.2.5.2	A – Clinical reasons for breaking the connection	None
<p><b>Healthcare workers must decontaminate their hands and wear a new pair of clean, non-sterile gloves before manipulating a patient's catheter, and must decontaminate their hands after removing gloves.</b></p> <p>[See data collection form, questions 3 to 6]</p>	1.2.5.3	None	None
<p><b>Patients managing their own catheters, and their carers, must be educated about the need for hand decontamination before and after manipulation of the catheter.</b></p> <p>[See data collection form, questions 7 to 8]</p>	1.2.5.4	B – No carer involved C – Patient doesn't want carer involved	This should be done in accordance with the recommendations in the standard principles section of the guideline (section 1.1).
<p><b>Urine samples must be obtained from a sampling port using an aseptic technique.</b></p> <p>[See data collection form, question 9]</p>	1.2.5.5	D – No urine samples have been obtained	None

Audit standards	Guidance reference	Exceptions	Definitions
<p><b>Urinary drainage bags should be positioned below the level of the bladder, and should not be in contact with the floor.</b></p> <p>[See data collection form, questions 10 to 11]</p>	1.2.5.6	None	None
<p><b>A link system should be used to facilitate overnight drainage.</b></p> <p>[See data collection form, question 12]</p>	1.2.5.7	None	This is to keep the original system intact.
<p><b>The meatus should be washed daily with soap and water.</b></p> <p>[See data collection form, question 13]</p>	1.2.5.9	None	None
<p><b>To minimise the risk of blockages, encrustations and catheter-associated infections for patients with a long-term indwelling urinary catheter:</b></p> <ul style="list-style-type: none"> <li>• <b>a patient-specific care regimen should be developed</b></li> <li>• <b>approaches such as reviewing the frequency of planned catheter changes and increasing fluid intake should be considered</b></li> <li>• <b>catheter blockages should be documented.</b></li> </ul> <p>[See data collection form, questions 14 to 16]</p>	1.2.5.10	None	The recommendation states that approaches such as reviewing the frequency of planned catheter changes and increasing fluid intake should be considered therefore a standard of 100% should not be set for this.
<p><b>Bladder instillations or washouts must not be used to prevent catheter-associated infections.</b></p> <p>[See data collection form, question 17]</p>	1.2.5.11	E – Used to prevent or help remove encrustations	None

Audit standards	Guidance reference	Exceptions	Definitions
<p><b>When changing catheters in patients with a long-term indwelling urinary catheter:</b></p> <ul style="list-style-type: none"> <li>• <b>antibiotic prophylaxis should not be offered routinely</b></li> <li>• <b>antibiotic prophylaxis should be considered for patients who:</b> <ul style="list-style-type: none"> <li>– <b>have a history of symptomatic urinary tract infection after catheter change or</b></li> <li>– <b>experience trauma during catheterisation.</b></li> </ul> </li> </ul> <p>[See data collection form, questions 18 to 20]</p>	1.2.5.13	None	<p>At the time of publication of the guideline (March 2012), no antibiotics have a UK marketing authorisation for this indication. Informed consent should be obtained and documented.</p> <p>Trauma is defined as frank haematuria after catheterisation or two or more attempts of catheterisation.</p>

## Data collection form for Infection prevention and control clinical audit

Audit ID:	Sex:	Age:
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The audit ID should be an anonymous code. Patient identifiable information should never be recorded.

White	Mixed	Asian or Asian British	Black or black British	Other
British <input type="checkbox"/>	White and black Caribbean <input type="checkbox"/>	Indian <input type="checkbox"/>	Caribbean <input type="checkbox"/>	Chinese <input type="checkbox"/>
Irish <input type="checkbox"/>	White and black African <input type="checkbox"/>	Pakistani <input type="checkbox"/>	African <input type="checkbox"/>	Any other ethnic group <input type="checkbox"/>
Any other white background <input type="checkbox"/>	White and Asian <input type="checkbox"/>	Bangladeshi <input type="checkbox"/>	Any other black background <input type="checkbox"/>	Not stated <input type="checkbox"/>
	Any other mixed background <input type="checkbox"/>	Any other Asian background <input type="checkbox"/>		

No.	Question	Yes	No	Exception* /NA/Notes
<b>Catheter management</b>				
1	Was any indwelling catheter connected to a sterile closed urinary drainage system or catheter valve?	<input type="checkbox"/>	<input type="checkbox"/>	
2	Was the connection between the catheter and the urinary drainage system broken?	<input type="checkbox"/>	<input type="checkbox"/>	<b>A</b>
3	Before manipulating the patient's catheter, were the following done:			
	• Hands decontaminated?	<input type="checkbox"/>	<input type="checkbox"/>	
4	• A new pair of clean, non-sterile gloves put on?	<input type="checkbox"/>	<input type="checkbox"/>	
	After manipulating the patient's catheter, were the following done:			
5	• Gloves removed?	<input type="checkbox"/>	<input type="checkbox"/>	
6	• Hands decontaminated?	<input type="checkbox"/>	<input type="checkbox"/>	
7	Was the patient educated about the need for hand decontamination before and after manipulation of the catheter?	<input type="checkbox"/>	<input type="checkbox"/>	
8	Was the carer(s) educated about the need for hand decontamination before and after manipulation of the catheter?	<input type="checkbox"/>	<input type="checkbox"/>	<b>B / C</b>
9	Were urine samples obtained from a sampling port using an aseptic technique?	<input type="checkbox"/>	<input type="checkbox"/>	<b>D</b>
10	Is the urine drainage bag positioned below the level of the bladder?	<input type="checkbox"/>	<input type="checkbox"/>	
11	Is the urine drainage bag in contact with the floor?	<input type="checkbox"/>	<input type="checkbox"/>	
12	Is a link system used to facilitate overnight drainage?	<input type="checkbox"/>	<input type="checkbox"/>	
13	Is the meatus washed daily with soap and water?	<input type="checkbox"/>	<input type="checkbox"/>	
14	Is there a patient-specific care regimen?	<input type="checkbox"/>	<input type="checkbox"/>	
15	Were approaches such as reviewing the frequency of planned catheter changes and increasing fluid intake considered?	<input type="checkbox"/>	<input type="checkbox"/>	

No.	Question	Yes	No	Exception* /NA/Notes
16	Was any catheter blockage documented?	<input type="checkbox"/>	<input type="checkbox"/>	
17	Was a bladder instillation or washout used to prevent catheter-associated infections?	<input type="checkbox"/>	<input type="checkbox"/>	<b>E</b>
18	If the patient has a long-term indwelling urinary catheter, was antibiotic prophylaxis offered when the catheter was changed?  If the patient has a history of symptomatic urinary tract infection after catheter change or experiences trauma during catheterisation:	<input type="checkbox"/>	<input type="checkbox"/>	
19	• Was antibiotic prophylaxis considered when the catheter was changed?	<input type="checkbox"/>	<input type="checkbox"/>	
20	• Was antibiotic prophylaxis given when the catheter was changed?	<input type="checkbox"/>	<input type="checkbox"/>	

\*Circle exception codes as appropriate.

### Exception codes

**A** – There are clinical reasons for breaking the connection.

**B** – No carer involved.

**C** – Patient does not want carer involved.

**D** – No urine samples have been obtained.

**E** – Used to prevent or help remove encrustations.

## Action plan for Infection prevention and control clinical audit

### KEY (Change status)

- 1 Recommendation agreed but not yet actioned
- 2 Action in progress
- 3 Recommendation fully implemented
- 4 Recommendation never actioned (please state reasons)
- 5 Other (please provide supporting information)

<b>Action plan lead</b>	Name:	Title:	Contact:
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The 'Actions required' should specifically state what needs to be done to achieve the recommendation. All updates to the action plan should be included in the 'Comments' section.

Recommendation	Actions required (specify 'None', if none required)	Action by date	Person responsible	Comments/action status (Provide examples of action in progress, changes in practices, problems encountered in facilitating change, reasons why recommendation has not been actioned etc)	Change stage (see Key)

When making improvements to practice, organisations may like to use the tools developed by NICE to help implement the clinical guideline on [Infection prevention and control](#).