

Checklists for Preventing and Controlling *Clostridium difficile* Infection (CDI)

This document has been developed to specifically assist senior management and all ward staff to take appropriate actions, with the aim of supporting prevention and control of CDI.

The statements included are not intended to give detailed guidance but are intended to be brief, measurable, useful statements that can be scored against.

These checklists;

- can be used for example on a daily, weekly or as identified basis, **by senior management and by all healthcare workers in wards/clinical areas.**
- can also be used by infection control teams for monitoring purposes when addressing actions taken to support the prevention and control of CDI.

The sections entitled “At all times” and “If your ward has patients with symptoms of CDI” are intended to build on each other, e.g. all of the points in each section should be addressed when patients present with symptoms of CDI. The points included are not intended to be in strict time-order, some actions might happen concurrently or before/after others, depending on the situation.

“All those working in healthcare have a responsibility to support the prevention and control of CDI”

Notes:

- It should be considered that when completing the checklists further evidence may be required to support a positive response, e.g. examples of meeting minutes, examples of audits and results, actions taken recorded in patients' notes. Additionally, notes for action might be required when scoring negatively against a statement.
- This document should be used in conjunction with local policies and other national CDI guidance including;
 - o the CDI national guidance "Guidance on Prevention and Control of *Clostridium difficile* Infection (CDI) in Healthcare Settings in Scotland" available at <http://www.hps.scot.nhs.uk/haic/sshaip/guidelinedetail.aspx?id=42640>
 - o the CDI surveillance protocol "Protocol for the Scottish Surveillance Programme for *Clostridium difficile* Associated Disease: A Manual for Data Providers and Users" available at <http://www.hps.scot.nhs.uk/haic/sshaip/guidelinedetail.aspx?id=40899>
- The HPS Model Policy on Contact Precautions and/or local policies should also be referred to for additional information on all of the steps to be taken when caring for a patient who requires contact precautions (including isolation) due to CDI.
- This document does not aim to give full, detailed guidance on the care of patients with CDI but is a reminder checklist for ease of use by all staff in their work settings.

This document has been prepared by the Health Protection Scotland HAI & IC Group in conjunction with NHS boards. HPS would like to thank NHS boards for contributing comments during the development of these checklists.

Responsibilities for senior management within the healthcare facility / organisation

Action	Date	Date	Date	Date	Date	Date	Date

	√ or X	√ or X	√ or X	√ or X	√ or X	√ or X	√ or X
1. Senior management ensures that local surveillance systems are in place that allow timeous collection and feedback of data to key clinical groups that leads to early detection of rising trends, investigation of cases and rapid implementation of interventions to reduce numbers of episodes and serious consequences due to CDI	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Specific CDI issues are reviewed at senior management meetings, e.g. outbreak/increased incidence reports and non-adherence to best practice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. CDI, or issues associated with its prevention and control e.g. isolation, have been considered for the NHS Board risk register	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Senior management facilitates and supports cross-representation between infection control committee and antimicrobial management team	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Senior management facilitates and supports cross-representation between infection control and bed management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Information on adherence to antibiotic policies and infection prevention and control measures (including audits) are reviewed by senior management (including antimicrobial management teams)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Mechanisms are in place to ensure that senior management review that resources are sufficient to achieve infection prevention and control standards supporting the reduction of CDI (e.g. adequate staffing levels, availability of single rooms, commodes, Personal Protective Equipment (PPE), hand hygiene facilities, decontamination equipment and chlorine based solutions, adequate education including for pharmacists)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Action	Date	Date	Date	Date	Date	Date	Date

	√ or X	√ or X	√ or X	√ or X	√ or X	√ or X	√ or X
8. Senior management supports and facilitates provision of infection prevention and control education programmes, which must include as a minimum hand hygiene, PPE use, isolation, cleaning/ decontamination procedures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Senior management can evidence adherence to national documents and targets related to the specific prevention and control of CDI	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Lessons learned exercises are supported following an increase in CDI cases/outbreaks and are based on root cause analysis, with reports and action plans reviewed and achieved. (Root cause analysis is a useful way of reviewing causes of significant incidents, for example if undertaken in conjunction with infection control teams when death has occurred from CDI within 30 days of CDI diagnosis or evidence of CDI at post mortem)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Ward responsibilities – all relevant staff members / healthcare workers (HCWs) should be involved in supporting prevention and control of CDI

AT ALL TIMES (Consider using Health Protection Scotland CDI care bundle “*Clostridium difficile* Infection (CDI) Cross-transmission Minimisation Bundle”)

Action	Date	Date	Date	Date	Date	Date	Date

	√ or X	√ or X	√ or X	√ or X	√ or X	√ or X	√ or X
1. Antibiotic policy is followed and antibiotic prescriptions have been reviewed daily (check drug kardexes). This includes stopping inappropriate antibiotic therapy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Drug kardexes are reviewed daily and proton pump inhibitors (and anti-motility agents) have been discontinued if possible	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. A recording mechanism for monitoring of patients with symptoms ¹ of CDI is in place at ward level	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. A baseline infection rate for CDI is documented on an ongoing basis in the ward, based on previous information and as discussed with the Infection Control Team (ICT) (e.g. through use of statistical process control chart)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Faecal specimens are sent from patients experiencing diarrhoea ²	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. A reporting system / mechanism for alerting ICTs to patients with symptoms, or to any unexpected increase / excess cases, is in place. (This may be based on local alert organism surveillance, facilitated through laboratory reporting and should consider the Hospital Infection Incident Assessment Tool (HIIAT))	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Action	Date	Date	Date	Date	Date	Date	Date

	√ or X	√ or X	√ or X	√ or X	√ or X	√ or X	√ or X
7. Specific environmental and equipment cleaning audits are completed and results reviewed. (This may be facilitated through ICT programme of audits, local auditing or National Cleaning Services Specification Monitoring)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Hand hygiene audits are performed with feedback available for all staff (This may be facilitated through existing local audits and/or monitoring as part of the National Hand Hygiene Campaign or the Scottish Patient Safety Programme)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. PPE (e.g. disposable aprons and gloves), is available for use when staff have to care for patients with diarrhoea or manage contaminated items	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

IF YOUR WARD HAS PATIENTS WITH SYMPTOMS OF CDI (Consider using Health Protection Scotland CDI care bundle “*Clostridium difficile* Infection (CDI) Cross-transmission Minimisation Bundle”)

10. Patients with known or suspected CDI are in a single, clutter free room with either en suite facilities, or an allocated commode, until they are at least 48 hours symptom free ³	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Where single room is not available, patients with CDI are cared for in cohort areas with patients with the same infection, preferably with doors that can be closed (Cohorted patients should be 3ft (1m) apart)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Patients with CDI have not been transferred unnecessarily to another ward/area. (This should be detailed in local policies relating to transfers)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Action	Date	Date	Date	Date	Date	Date	Date

	√ or X	√ or X	√ or X	√ or X	√ or X	√ or X	√ or X
13. There is evidence of a medical review of CDI positive symptomatic patients, with referral to a microbiologist / infectious diseases physician / gastroenterologist as appropriate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. CDI treatment prescribed for patients is according to local policy/ treatment algorithm ⁴	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. Samples sent from patients with severe symptoms have microbiological culture requested in addition to toxin testing ⁵	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. Supplies of PPE (e.g. disposable aprons and gloves) are available at the entrance to patient rooms/cohort areas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. HCWs always wear PPE when caring for patients with diarrhoea or managing contaminated items, including linen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. HCWs remove PPE immediately after each patient care activity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. Hands are always washed with soap and water after removal of PPE (whether within the room/area (if facilities available) or once it has been removed after leaving the room/area). Alcohol hand rub solutions are not used alone in these instances i.e. without hand washing with soap and water first	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. All equipment in use is fit for purpose (e.g. not torn or split) and is capable of withstanding decontamination (e.g. commodes, bed mattresses, chairs)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Action	Date	Date	Date	Date	Date	Date	Date

	√ or X	√ or X	√ or X	√ or X	√ or X	√ or X	√ or X
21. CDI patients' immediate environments are decontaminated with a solution containing 1000ppm available chlorine (particularly toilets, horizontal and frequently touched surfaces in immediate patient area)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22. A cleaning schedule for commodes is available and signed off	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23. Linen from CDI symptomatic patients is immediately placed in an alginate (water soluble) bag (these are often red in colour) at the point of removal and then placed into the correct secondary bag / receptacle (as per local policies) to be handled as infected linen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24. Waste from CDI symptomatic patients is disposed of immediately as healthcare waste	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25. Patients and visitors are alerted to the infection and steps to be taken including hand washing with soap and water ⁶	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26. All staff; nurses, medical staff, pharmacists, etc are allocated responsibilities for checking standards of treatment and management as described for example in this checklist	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27. Root cause analysis is undertaken (in conjunction with the ICT) where death has occurred from CDI within 30 days of CDI diagnosis (according to National Surveillance Protocol) or evidence of CDI at post mortem	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Action	Date	Date	Date	Date	Date	Date	Date

	√ or X	√ or X	√ or X	√ or X	√ or X	√ or X	√ or X
28. Action plans which apply to all relevant staff disciplines are available and describe steps to be taken to correct non-adherence to CDI prevention and control measures including those featured in this checklist	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29. Terminal cleaning has been carried out when CDI patients are discharged from rooms / cohort areas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30. Faecal samples from all cases are stored in case further typing at <i>C. difficile</i> reference laboratory is required (request for labs to do this can be added to the sample form when sending)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Notes:

1. Symptoms of CDI are noted within the national surveillance protocol as an increase in frequency of loose bowel movements over a period of 24 hours that has no other underlying cause (“Protocol for the Scottish Surveillance Programme for *Clostridium difficile* Associated Disease: A Manual for Data Providers and Users” available at <http://www.hps.scot.nhs.uk/haic/sshaip/guidelinedetail.aspx?id=40899>).
2. Faecal samples should be obtained from any patient with diarrhoea, defined as an increase in frequency of loose bowel movements over a period of 24 hours that has no other underlying cause (diarrhoeal specimen is a specimen of faeces that conforms to the shape of its container).
3. Consider reporting if single room allocation is not achievable, for example if more than 1hr has elapsed since the need for a single room due to CDI has arisen. This might include to infection control, bed management, senior management.
4. A treatment algorithm can be found in the CDI national guidance “Guidance on Prevention and Control of *Clostridium difficile* Associated Disease (CDI) in Healthcare Settings in Scotland” available at <http://www.hps.scot.nhs.uk/haic/sshaip/guidelinedetail.aspx?id=42640>
5. Severe symptoms (cases) are defined in the surveillance protocol as; 1) admission to healthcare facility for treatment of community acquired CDI; 2) admission to ITU for treatment of CDI or its complications; 3) Endoscopic diagnosis of pseudomembranous colitis (with or without toxin confirmation); 4) surgery for complications of CDI (toxic megacolon, perforation or refractory colitis); 5) death within 30 days following a diagnosis of CDI whether it is either the primary or major contributory factor; 6) persisting CDI where the patient has remained symptomatic and toxin positive despite two courses of appropriate therapy.
6. A patient information leaflet can be given out. The HPS leaflet “*Clostridium difficile* Infection Information for Hospital Patients and Visitors” can be found at <http://www.documents.hps.scot.nhs.uk/hai/sshaip/guidelines/clostridium-difficile/cdiff-patient-info-2008-06.pdf>