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www.nhsggc.scot/hospitals-services/services-a-to-z/infection-prevention-and-control				

#### **SOP Objective**

To provide Healthcare Workers (HCW) with details of the care required to prevent crossinfection in children with *Clostridioides difficile* Infection (CDI).

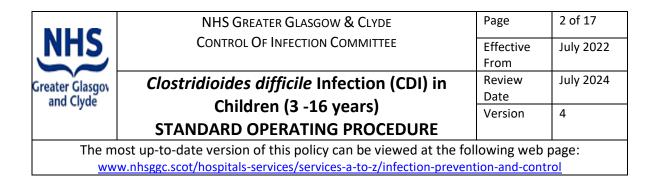
This SOP applies to all staff employed by NHS Greater Glasgow & Clyde and locum staff on fixed term contracts and volunteer staff.

## **KEY CHANGES FROM THE PREVIOUS VERSION OF THIS POLICY**

**Important Note:** The version of this policy found on the Infection Prevention & Control (eIPC Manual) on the intranet page is the <u>only</u> version that is controlled. Any other versions either printed or embedded into other documents or web pages should be viewed as uncontrolled and as such may not necessarily contain the latest updates, amendments, or linkages to other documents.

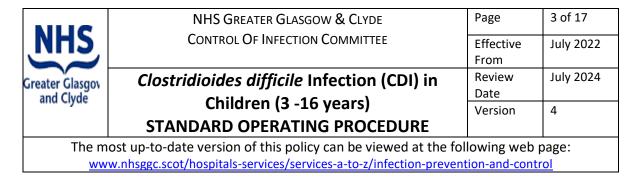
Board Infection Control Committee 18 <sup>th</sup> August 2022
22 <sup>nd</sup> August 2022
Infection Control Policy Sub-Group
National Infection Prevention and Control Manual
NHSGGC SOP CDI (Adults)
NHSGGC Hand Hygiene Guidance
NHSGGC Outbreak Incident Management Plan
NHSGGC SOP Cleaning of Near Patient Equipment
NHSGGC SOP Terminal Clean of Ward/Isolation Rooms
NHSGGC SOP Twice daily Clean of Isolation Rooms
Antimicrobial Prescribing Policies
NHSGGC Infection Prevention and Control web page:
www.nhsggc.scot/hospitals-services/services-a-to-z/infection-
prevention-and-control
Director Infection Prevention and Control
Executive Director of Nursing

#### Document Control Summary

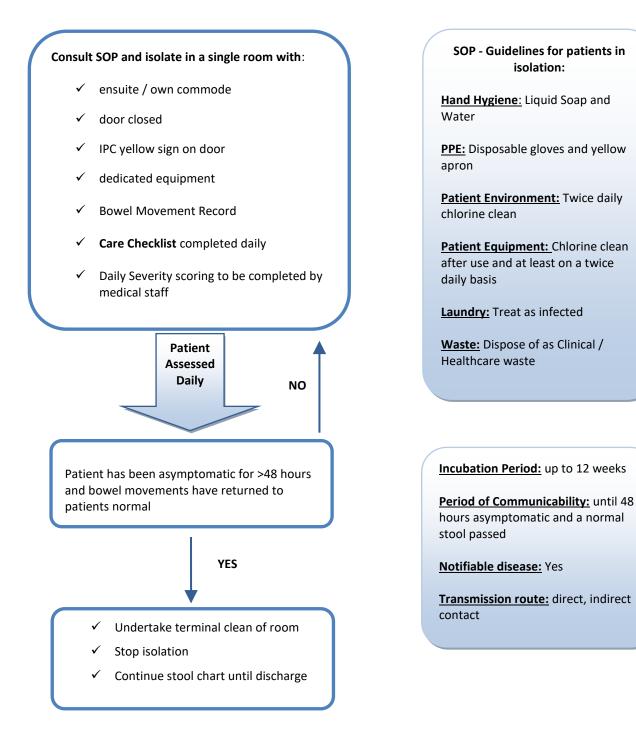


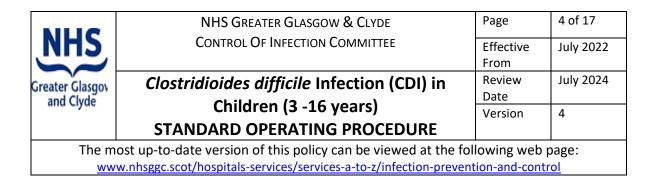
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#### **CDI Paediatric Aide Memoire**





## 1. Responsibilities

## Healthcare Workers (HCWs) must:

• Follow this SOP.

Commence a CDI Care Checklist while patient is symptomatic, update daily and complete the risk assessment for any aspect of transmission based precautions (TBP) for CDI that cannot be implemented

<u>Clostridioides Difficile – IPC Care checklist</u>

- Inform their line manager and a member of the Infection Prevention and Control Team if this SOP cannot be followed.
- Provide written and verbal information on CDI for patients and their relatives as appropriate

**Clostridioides Difficile Fact Sheet** 

## Senior Charge Nurse (SCN) must:

- Ensure that the IPC Care checklist is in place while patient is deemed infectious.
- Ensure that written information is provided / available for patients and relatives.
- Ensure a failure to isolate risk assessment is in place if any aspect of TBPs for CDI cannot be implemented

## Managers must:

- Support HCWs and IPCTs in following this SOP.
- Cascade new SOPs to clinical staff after approval by the Board Infection Control Committee (BICC).

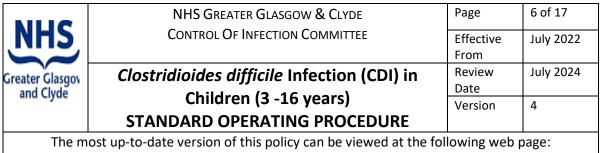
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# Infection Prevention and Control Teams (IPCTs) must:

- Keep this SOP up-to-date.
- Provide education opportunities on this SOP.
- Monitor epidemiology of *Clostridioides difficile* Infection (CDI) within healthcare facility(ies) and advise on infection prevention and control precautions as necessary.
- Advise and support HCWs to undertake a Risk Assessment if unable to follow this SOP.

## **Occupational Health Service (OHS) must:**

• Advise HCW regarding possible infection exposure and return to work issues as necessary

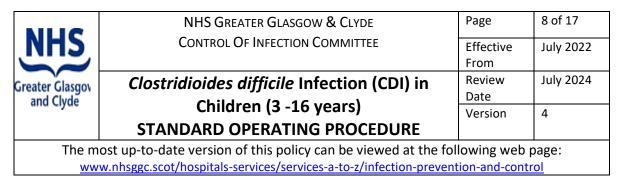


www.nhsggc.scot/hospitals-services/services-a-to-z/infection-prevention-and-control

# 2. General Information on Clostridioides difficile Infection (CDI)

Commission 11 Direct			
Communicable Disease/	Clostridioides difficile is a Gram positive, anaerobic, spore		
Alert Organism	forming, toxin producing gastrointestinal bacillus. Recent		
	studies have shown that C. difficile is an emerging pathogen		
	in the paediatric setting, causing a range of illness; from mild		
	diarrhoea to life changing conditions such as pseudo-		
	membranous colitis, toxic megacolon, intestinal perforation		
	and septic shock. It is imperative that clinical judgement is		
	exercised in order that aetiologies are appropriately		
	investigated.		
Case Definition	A child (3-16 years of age) has a diagnosis of CDI if they have		
	a stool specimen positive for CD toxin, diarrhoea (Bowel		
	Movement Record <u>5-7</u> ) and one or more of the following:		
	<ul> <li>Significant co-morbidities i.e. haematology/oncology ;</li> </ul>		
	gastrointestinal		
	<ul> <li>Severe GI disease with bloody diarrhoea and an</li> </ul>		
	unlikely alternative diagnosis		
	Strong clinical suspicion		
	Antibiotic therapy in the last 4 weeks (especially		
	ciprofloxacin)		
Case Definition :	Hospital acquired CDI is defined as when a patient has had		
Determination of source	onset of symptoms at least 48 hours following admission to a		
	hospital		
	Healthcare associated CDI is defined as when a patient has		
	had onset of symptoms up to four weeks after discharge		
	from a hospital		
	Indeterminate cases of CDI is defined as a patient who was		
	discharged from a hospital 4–12 weeks before the onset of		
	symptoms.		
	symptoms.		
	Community associated CDI Is defined as a patient with onset		
	of symptoms while outside a hospital and without discharge		
	from a hospital within the previous 12 weeks – or with onset		

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		spitals-services/services-a-to-z/infection-prevention	-	
		of symptoms within 48 hours following hospital without stay in a hospital with weeks	-	
Mode of Spread		There is evidence of both direct and in the hands of HCWs and patients; and e contamination via equipment and inst commodes, bedpans and washbowls. spores which can survive for long perio Environmental cleaning is paramount.	environmen ruments, e. C. difficile p	tal g. roduces
Incubation I	Period	Potentially up to 12 weeks.		



# 3. Transmission Based Precautions for CDI

Accommodation (Patient Placement)	The patient should be placed in a single room, preferably with ensuite or own commode. The door to the room should be closed when not in use and a yellow IPCT sign placed on the door. If a side room is unavailable the IPCT will help the clinical team to undertake a risk assessment and advise where to nurse the patient.
	Precautions should continue until the patient has been asymptomatic for 48 hours and bowel movements have returned to normal or, on the advice of a member of the IPCT.
Care Checklist available	Yes. CDI Care Checklist
Clinical/ Healthcare Waste	All non-sharps waste should be designated as Healthcare/Clinical Waste (HCW) and placed in an orange clinical waste bag within the room. Please refer to the <u>NHSGCC Waste Management Policy</u>
Contacts	Specimens should not be sent from patients deemed to be contacts unless they develop loose stools, where there is no other cause for this.
Domestic Services/ Facilities	Domestic staff must follow the <u>NHSGGC SOP for Twice Daily</u> <u>Clean of Isolation Rooms</u> Cleans should be undertaken at least four hours apart

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	v.nhsggc.scot/hospitals-services/services-a-to-z/infection-preven	-			
EquipmentPatient equipment, e.g. commode, BP cuff, washb allocated to the patient until no longer considered Consider single-use or single patient use equipmen should be decontaminated after each use with chl detergent, 1,000 ppm, with 10 minute contact tim Twice Daily Clean of Isolation Rooms SOP					
Hand Hygier	-	Alcohol gel hand rub and chlorhexidine are <u>not</u> effective against CDI: Soap and water must be used for all patients with loose stools.			
	prevent cross infection with CDI. Hands decontaminated before and after each after contact with the environment, aft fluids and before any aseptic tasks. Pat encouraged to carry out thorough hand unable to decontaminate their hands th	Hand hygiene is the single most important measure to prevent cross infection with CDI. Hands must be decontaminated before and after each direct patient contact, after contact with the environment, after exposure to body fluids and before any aseptic tasks. Patients should be encouraged to carry out thorough hand hygiene. If a child is unable to decontaminate their hands then hand hygiene should be carried out by a HCW or patient carer for them.			
		Please refer to <u>NHSGGC Hand Hygiene Guidance</u> Visitors should also be instructed to wash their hands with			
ARHAI Trigger Tool			s in the staff will igger is no ger		
	<ul> <li>Request a terminal clean of the trigger</li> <li>Advise on enhanced IPC precaut</li> <li>Undertake SIPC's audit hand hypering</li> </ul>	ions to be i giene audit			

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<u>ww</u>	w.nnsggc.scot/no	ospitals-services/services-a-to-z/infection-preven	ntion-and-con	<u>trol</u>
		Findings will be reported to the SCN ar	nd ward staf	f who
		should liaise with IPC and pharmacy co	lleagues on	any
		actions required as a result.		
		Following this, should another case of IPCT will complete a PAG to determine an IMT and ward closure.		-
Linen		Treat used linen as soiled/ infected, i.e soluble bag then a clear plastic bag, tie laundry bag. (Brown bag used in Ment Please refer to <u>National Guidance on t</u> of linen.	d and then al Health ar	into a eas)
Moving between wards, hospitals and departments (including theatres)		Except in clinical emergencies, transfer they are symptom-free for 48-hours ar normal stool is not advisable.		
		However, acute receiving units have a high patient turnover and transfer of patients is necessary for effective patient flo and to ensure that patients receive the appropriate care within their specialty. Therefore, Receiving areas <b>MUST</b> be informed of the patient's condition <b>before</b> the patient is transferred and the requirement for a single room.		oatient flow e care <b>MUST</b> be ient is
		Please follow <u>NHSGGC SOP Terminal C</u> <u>Rooms</u>	lean of War	<u>d/Isolation</u>

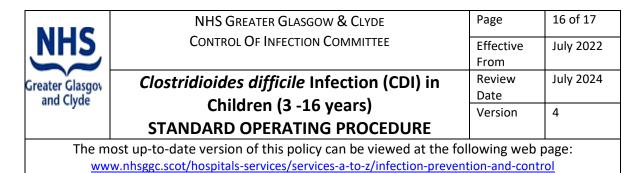
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<u>ww</u>	w.nhsggc.scot/hc	ospitals-services/services-a-to-z/infection-preven	tion-and-cont	rol	
Notice for D	oor	The yellow IPC isolation sign must be pl	aced on the	door to	
		the patient's room.			
Patient Clot	hina	In Mental Health Services (MHS), on ad Whilst patients are very symptomatic the symptomatic th			
Futient Cioti	iiiig	to wear hospital gowns.	iey should i	Je auviseu	
		If relatives or carers wish to take person	0		
		staff must place clothing into a domesting then into a patient clothing bag and sta		-	
		Washing Clothes at Home Patient Infor			
		issued.			
		<b>NB:</b> It should be recorded in the nursin	a notos tha	t both tho	
		advice and information leaflet has been	-	t both the	
Patient Info	rmation	Inform the patient and / or if relevant, th	e patient's r	elative/	
		carer of their condition and the necessary precautions if			
		required. Answer any questions and concerns they may have. A CDI Fact sheet for patients and their relatives is available to			
		download from the IPCT website.			
		<b>NB:</b> It should be recorded in the nursing notes or Care			
		Checklist that the fact sheet has been issued. IPCTs are			
		available to speak to patients or relatives/ carers if required.			
		CDI Fact Sheet			
Personal Pro		To prevent spread through direct contact		-	
Equipment (	PPE)	and yellow apron) must be worn for all di patient or the patient's environment/equ		t with the	
		If there is a risk of splashing of blood/boo	•	n facial	
		protection i.e. mask/visor should also be considered. Hand			
		hygiene must be performed using liquid s donning and after doffing PPE. Alcohol ba	•		
		effective against CDI.	iseu Hallu (l		
Precautions	required	Precautions should continue until the p			
until		asymptomatic for 48 hours and bowel r			
		returned to the patient's normal or, on of the IPCT.	auvice of a	memper	
				- I	
		If symptoms recur, reinstate precaution	is immediat	ely, send	

NTROL OF INFECTION COMMITTEE <b>Dides difficile</b> Infection (CDI) in Children (3 -16 years) ARD OPERATING PROCEDURE ersion of this policy can be viewed at the spitals-services/services-a-to-z/infection-pre further specimens and inform a men IPCNs will check daily (Monday -Frida	vention-and-cor	
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IPCNs will check daily (Monday -Frida	nber of the IP	
IPCNs will check daily (Monday -Frida	mber of the IP	
		CI.
	y) on the cond	ition of
patients with CDI until TBPs are no lo	nger required	and
thereafter weekly for 4 weeks.		
If the patient is confirmed as CDI, ar		
		•
	0	
	ed to take bio	oods to
complete the severity score.		
Severity assessment in paediatric po	pulation (3-1	6 years)
Criteria	Yes No	Score if Yes
Diarrhoea >5 times per day		1
Abdominal pain and discomfort		1
Rising white cell count		1
Raised C-reactive protein		1
Pyrexia >38 °C		1
Evidence of pseudo membranous colitis		2
Intensive care unit requirement		2
≥ 5 = severe disease		
•		ds)
		,
		nical Teams
_	01	
0		
A Clinical Daview is many in hitch		
-		
	ment of CDI of	TITS
<ul><li>complications</li><li>Had endoscopic diagnosis of p</li></ul>		
Had endosconic diagnosis of r		
with or without toxin confirm		anous colitis
	undertake a daily severity assessment tool below. Daily severity assessment patient has been asymptomatic for Medical staff should consider the net complete the severity score. Severity assessment in paediatric por Criteria Diarrhoea >5 times per day Abdominal pain and discomfort Rising white cell count Raised C-reactive protein Pyrexia >38 ℃ Evidence of pseudo membranous colitis Intensive care unit requirement Total score ≥ 5 = severe disease If a patient is assessed as severe the erefer to the CDI treatment al Communicate severe cases t Management Team/ Microb e IPCT will generate a datix A Clinical Review is required if the pat e Has severe or life threatening Was admitted to ITU for treat	Severity assessment in paediatric population (3-1)         Criteria       Yes       No         Diarrhoea >5 times per day       Addominal pain and discomfort       Image: Comparison of the patient of t

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<ul> <li>megacolon, perforation or refractory colitis)</li> <li>Died within 30 days following a diagnosis of CDI where is recorded as either the primary or a major contributo factor on the death certificate</li> <li>Had persisting CDI where the patient has remained symptomatic and toxin positive despite two courses of appropriate therapy</li> </ul>				contributory nained	
Deaths due t (Underlying Contributing	or	If death occurs then please see the Adult process to be followed. CDI (adult) SOP	: CDI Guideli	ne for the	

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Treatment		Mild disease (score 1.2)					
meatment		Mild disease (score 1-2) Mild disease may not require treatment. Consider oral					
		metronidazole for 10-14 days if symptoms persist					
		Moderate disease (score 3-4)					
		Oral metronidazole for 10-14 days.					
		Consider escalation to oral Vancomycin if non resolution of symptoms					
		Severe disease ≥5					
		Oral Vancomycin and iv metronidazole.		-			
		intervention/ colectomy if evidence of	caecal dilata	ation on			
		imaging					
		https://clinicalguidelines.nhsggc.org.uk/paediatrics/infectiou					
		s-disease-paediatric/clostridium-difficile-infection-cdi-in-					
<u>En o cimo no n</u>		children-diagnosis-and-management/					
Specimens r	requirea	Send faecal specimens from any patient who has loose stools that score 5-7 on Bowel Movement Record (Appendix 1) and					
		if no other cause of diarrhoea is known					
		stools persist, another two samples should be sent at 24-					
		hour intervals. Relevant clinical information must be supplied with the specimen.					
		There is no requirement to send clearance specimens from patients who become asymptomatic.					
		Specimens should not be sent whilst patient is on treatment.					
		Only when a relapse of CDI is suspected should you repeat					
		the toxin testing and exclude other potential causes of					
		diarrhoea, and only after 14 days of treatment. Relapse can					
		also occur up to 14 days after therapy has stopped.					
Stool Charts	5	It is the responsibility of staff looking after the patient within					
		the area to record signs and symptoms o					
		appropriate, e.g. Bowel Movement Recor					
		date, time, size and nature of the stool sl					
		while symptomatic and continued until discharge in order to reduce the risk of cross infection.					

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Surveillance		Surveillance of CDI is mandatory in Scotland and is reported to HPS by the Diagnostic Laboratory.					
		Local surveillance in NHSGGC is returned to wards with a prevalence of CDI monthly using Statistical Process Control Charts (SPCs). SPCs are not a substitute for local referral by clinical staff and ICTs but should be used to monitor trends and promote quality improvement.					
Terminal Cle Room	aning of	<ul> <li>Follow SOP for Terminal Clean of Isolation Rooms. If isolation is discontinued and the patient remains in hospital, consider moving the patient to a new bed-space. This will allow the patient's bed, bed locker and bed table to be decontaminated thoroughly. These items can be expected, without cleaning, to remain contaminated.</li> <li><i>NB:</i> relapse and re-infection from the environment can be as high as 20% in patients with CDI.</li> <li>See <u>NHSGGC SOP Terminal Clean of Ward/Isolation Rooms</u></li> </ul>					
Visitors		Visitors are not required to wear aprons and gloves unless participating in patient care. If PPE is worn by patients or visitors it should be removed before leaving the room. Visitors should be advised to decontaminate their hands with liquid soap and water on leaving the room/ patient. Visitors should also be advised not to use communal areas or to sit on beds, while patient is infectious.					



## 4. Evidence Base

Pai S et al. Five years experience of clostridium difficile infection in children at a UK tertiary hospital: proposed criteria for diagnosis and management. PLOS 2012; 71-6

Lees E A et al. The role of Clostridium difficile in the paediatric and neonatal gut — a narrative review. Eur J Clin Microbiol Infect Dis (2016) 35:1047-1057

http://www.nipcm.hps.scot.nhs.uk/

https://www.hps.scot.nhs.uk/web-resources-container/guidance-on-prevention-andcontrol-of-clostridium-difficile -infection-cdi-in-health-and-social-care-settings-inscotland/

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Appendix 1 – Bowel Movement Record (adapted from the Bristol Stool Scale)

#### BOWEL MOVEMENT RECORD

Name:						Month:		Year:		
Name.										
Date	Time	Size S-small M-medium L-large S M L	Type 1 Separate hard lumps like nuts (hard to pass)	Type 2 Sausage shaped bar lumpy	Type 3 Like a sausage but with cracks on surface	Type 4 Like a sausage or snake, smooth and soft	Type 5 Soft blobs with clear- cut edges (passed easily)	Type 6 Fluffy pieces with ragged edges, a mushy stool	Type 7 Watery, no solid pieces (entirely liquid)	Staff Initials
	am		27			· · · · · · · · · · · · · · · · · · ·				
	pm			-		-	-		2	
	am pm									
	am	1							1	î —
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	am									1
	pm						-			
	am pm									
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Adapted from the Bristol Stool Scale developed by KW Heaton and SJ Lewis at the University of Bristol, 1997