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SOP Objective

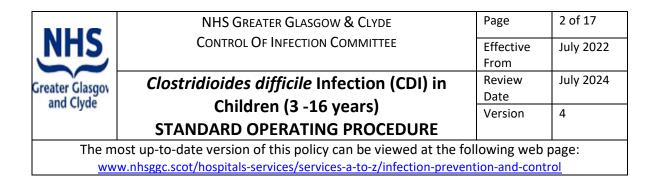
To provide Healthcare Workers (HCW) with details of the care required to prevent crossinfection in children with *Clostridioides difficile* Infection (CDI).

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

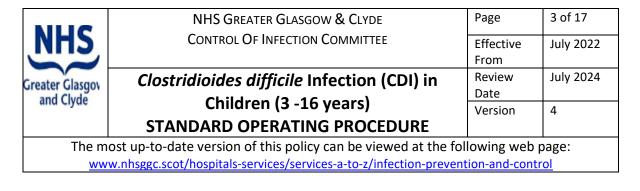
Document Control Summary	
Approved by and date	Board Infection Control Committee 18 th August 2022
Date of Publication	22 nd August 2022
Developed by	Infection Control Policy Sub-Group
Related Documents	National Infection Prevention and Control Manual
	NHSGGC SOP CDI (Adults)
	NHSGGC Hand Hygiene Guidance
	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
Distribution/ Availability	NHSGGC Infection Prevention and Control web page:
	www.nhsggc.scot/hospitals-services/services-a-to-z/infection-
	prevention-and-control
Lead Manager	Director Infection Prevention and Control
Responsible Director	Executive Director of Nursing

Document Control Summary

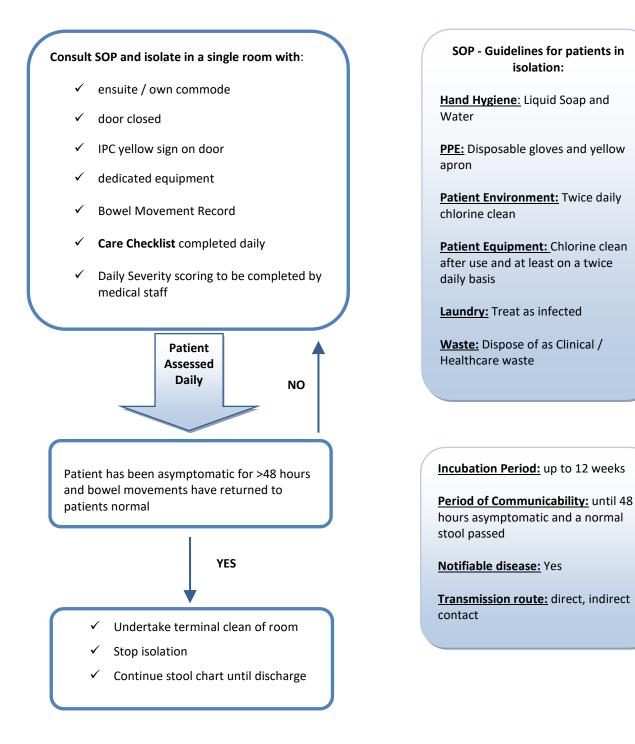


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CDI Paediatric Aide Memoire



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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

Clostridioides Difficile – IPC Care checklist

- 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).

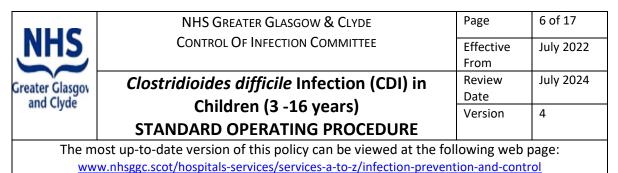
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Infection Prevention and Control Teams (IPCTs) must:

- 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



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

Communicable Disease/ Alert Organism Case Definition	 ase/ Clostridioides difficile is a Gram positive, anaerobic, spore 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. 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: 	
	 Movement Record <u>5-7</u>) and one or more of the following: Significant co-morbidities i.e. haematology/oncology; gastrointestinal Severe GI disease with bloody diarrhoea and an unlikely alternative diagnosis Strong clinical suspicion Antibiotic therapy in the last 4 weeks (especially ciprofloxacin) 	
<i>Case Definition : Determination of source</i>	 Hospital acquired CDI is defined as when a patient has had 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. 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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		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 instr commodes, bedpans and washbowls. spores which can survive for long perio Environmental cleaning is paramount.	nvironment uments, e.g C. difficile p	tal g. roduces
Incubation Period Potentially up to 12 weeks.				

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3. Transmission Based Precautions for CDI

Accommodation	The patient should be placed in a single room, preferably
(Patient Placement)	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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Equipment		Patient equipment, e.g allocated to the patient Consider single-use or s should be decontamina detergent, 1,000 ppm, <u>Twice Daily Clean of Isc</u>	t until no longer co single patient use nted after each use with 10 minute co	onsidered in equipment. e with chlori ontact time.	fectious. Commodes
Hand Hygiene		Alcohol gel hand rub a against CDI: Soap and with loose stools.			
		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		Clinical Staff if there are same ward in a two we complete the <u>trigger tr</u> longer in place i.e. one	re two or more H eek period. IPCNs <u>ool checklist</u> daily e or both patients peen discharged.	rged. The following actions	
		 Request a terminal clean of the ward at the start of the trigger Advise on enhanced IPC precautions to be in place. Undertake SIPC's audit hand hygiene audit Ask the antimicrobial pharmacist to review prescribing 			

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		Findings will be reported to the SCN and	d ward staf	f who	
		should liaise with IPC and pharmacy col			
		actions required as a result.			
		Following this, should another case of F IPCT will complete a PAG to determine an IMT and ward closure.	the require	ment for	
Linen		Treat used linen as soiled/infected, i.e. soluble bag then a clear plastic bag, tied laundry bag. (Brown bag used in Menta Please refer to <u>National Guidance on the</u> of linen.	d and then I Health are	into a eas)	
Moving betw	veen wards,	Except in clinical emergencies, transfer of patients before			
hospitals an		they are symptom-free for 48-hours and/or and passed a			
department theatres)	s (including	normal stool is not advisable.			
		However, acute receiving units have a h and transfer of patients is necessary for and to ensure that patients receive the within their specialty. Therefore, Receiv informed of the patient's condition befo transferred and the requirement for a s	effective p appropriat ving areas N ore the pat ingle room	oatient flow e care /IUST be ient is	
		Rooms			

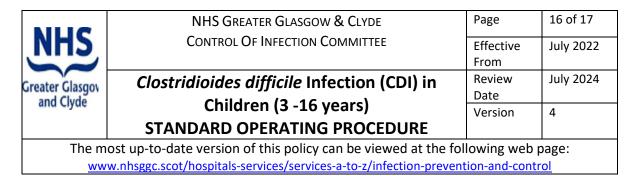
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Notice for D	oor	The yellow IPC isolation sign must be pl	aced on the	door to	
j ==		the patient's room.			
Dationt Clat	h :	In Mental Health Services (MHS), on ad			
Patient Clot	ning	Whilst patients are very symptomatic to wear hospital gowns.	ney should l	be advised	
		If relatives or carers wish to take person	nal clothing	home,	
		staff must place clothing into a domest		-	
		then into a patient clothing bag and sta Washing Clothes at Home Patient Infor			
		issued.			
		NB: It should be recorded in the nursing notes that both the			
		advice and information leaflet has been			
Patient Info	rmation	Inform the patient and / or if relevant, the patient's relative/ 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.			
		NB: It should be recorded in the nursin	g notes or (are	
		NB: 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 relativ	es/ carers if	required.	
		CDI Fact Sheet			
Personal Pro	otective	To prevent spread through direct contact	t PPE (dispos	sable gloves	
Equipment (PPE)	and yellow apron) must be worn for all d		-	
		patient or the patient's environment/equ	•	n fa sial	
		If there is a risk of splashing of blood/boo protection i.e. mask/visor should also be	•		
		hygiene must be performed using liquid s			
		donning and after doffing PPE. Alcohol b	ased hand ru	ıb is not	
Precautions	required	effective against CDI. Precautions should continue until the p	atient has h	leen	
until	icyulleu	asymptomatic for 48 hours and bowel i			
		returned to the patient's normal or, on advice of a member			
		of the IPCT.			
		If symptoms recur, reinstate precautior	ns immediat	ely, send	

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		further specimens and inform a me	mber of the IF	PCT.	
Daily and we	ekly check	IPCNs will check daily (Monday -Frida	ay) on the conc	lition of	
by IPCT		patients with CDI until TBPs are no lo	onger required	and	
		thereafter weekly for 4 weeks.			
Daily assess	•	If the patient is confirmed as CDI, a	•		
severity by c	linical team	symptomatic of loose stools, medic		•	
		undertake a daily severity assessme	-		
		tool below. Daily severity assessme			
		patient has been asymptomatic for			
		Medical staff should consider the n	eed to take bl	oods to	
		complete the severity score.			
		Severity assessment in paediatric p	opulation (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	
		Total score			
		≥ 5 = severe disease			
		 If a patient is assessed as severe the refer to the CDI treatment a Communicate severe cases Management Team/ Microb IPCT will generate a datix 	llgorithm (pae to the Senior		
Clinical revie assessment (Reporting of		 A Clinical Review is required if the pa Has severe or life threatening Was admitted to ITU for treatening 	g CDI	r its	
of CDI		 complications Had endoscopic diagnosis of pseudomembranous colitis with or without toxin confirmation Had surgery for the complications of CDI (toxic 			

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		 megacolon, perforation or refract Died within 30 days following a d is recorded as either the primary factor on the death certificate Had persisting CDI where the patt symptomatic and toxin positive d appropriate therapy 	iagnosis of C or a major c ent has rem	ontributory ained					
Deaths due t (Underlying Contributing	or	If death occurs then please see the Adult process to be followed. <u>CDI (adult) SOP</u>	CDI Guidelir	ne for the					

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Treatment		Mild disease (score 1-2)					
<i>incutinent</i>		Mild disease may not require treatmen	t. 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 Vancomycir symptoms	n if non resc	olution of			
		<u>Severe disease ≥5</u>					
		Oral Vancomycin and iv metronidazole. Consider surgical					
		intervention/ colectomy if evidence of	caecal dilat	ation on			
		imaging					
		https://clinicalguidelines.nhsggc.org.uk/paediatrics/infectiou					
		s-disease-paediatric/clostridium-difficile-infection-cdi-in-					
		children-diagnosis-and-management/					
Specimens r	required	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. If negative and loose 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	er the patier	nt within			
		the area to record signs and symptoms o					
		appropriate, e.g.Bowel Movement Record, Appendix 1. The					
		date, time, size and nature of the stool should be recorded while symptomatic and continued until discharge in order to					
		reduce the risk of cross infection.	_				

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WW	w.nnsggc.scot/nc	ospitals-services/services-a-to-z/infection-prever	ition-and-cont	roi			
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	 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. <i>NB:</i> relapse and re-infection from the environment can be as high as 20% in patients with CDI. See <u>NHSGGC SOP Terminal Clean of Ward/Isolation Rooms</u> 					
Visitors		Visitors are not required to wear apror participating in patient care. If PPE is w visitors it should be removed before le Visitors should be advised to decontan liquid soap and water on leaving the ro should also be advised not to use com on beds, while patient is infectious.	vorn by patie aving the ro ninate their pom/ patien	ents or om. hands with t. Visitors			



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

						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 but 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 Fuffy pieces with ragged edges, a mushy stool	Type 7 Watery, no solid pieces (entirely liquid)	Staff Initials
	am pm						1			
			7				-			
	am pm	I I								
	am	1					1			
	pm		33	0		0	13			
	am		8	S						
	pm									L
	am	1 1							() () () () () () () () () ()	
	pm am						-		-	-
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				1	and II in the		1	1		

Adapted from the Bristol Stool Scale developed by KW Heaton and SJ Lewis at the University of Bristol, 1997