



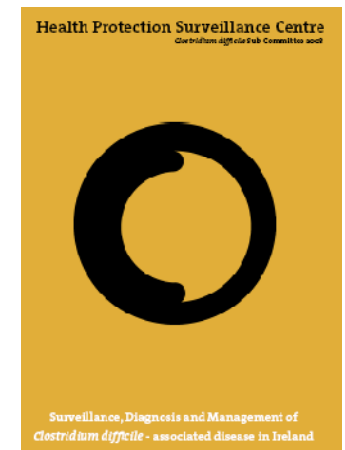
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Clostridium difficile **associated disease:**

A National Overview **2008 - 2009**

Background

- May 2008: National *Clostridium difficile* guidelines published
- New cases of *Clostridium difficile*-associated disease (CDAD) became notifiable in Ireland since the 4th May 2008 (under ‘Acute infectious gastroenteritis’)



Case definitions

Clostridium difficile

A confirmed *C. difficile* associated disease (CDAD) case is a patient two years or older, to whom one or more of the following criteria applies:

- Diarrhoeal¹ stools or toxic megacolon, with either a positive laboratory assay for *C. difficile* toxin A (TcdA) and/or toxin B (TcdB) in stools or a toxin-producing *C. difficile* organism detected in stool via culture or other means
- Pseudomembranous colitis (PMC) revealed by lower gastrointestinal endoscopy
- Colonic histopathology characteristic of *C. difficile* infection (with or without diarrhoea) on a specimen obtained during endoscopy, colectomy or autopsy

Notes:

1. Diarrhoea is defined as three or more loose/watery bowel movements that take up the shape of their container (which are unusual or different for the patient) in a 24 hour period.

Kuijper EJ, Coignard B, Tull P. Emergence of *Clostridium difficile*-associated disease in North America and Europe. Clin Microbiol Infect 2006;12 Suppl 6:2-18.



Methods

- New cases of *C. difficile* infection notified from 4th May 2008 (week 19) until the Dec 2009 (week 52).

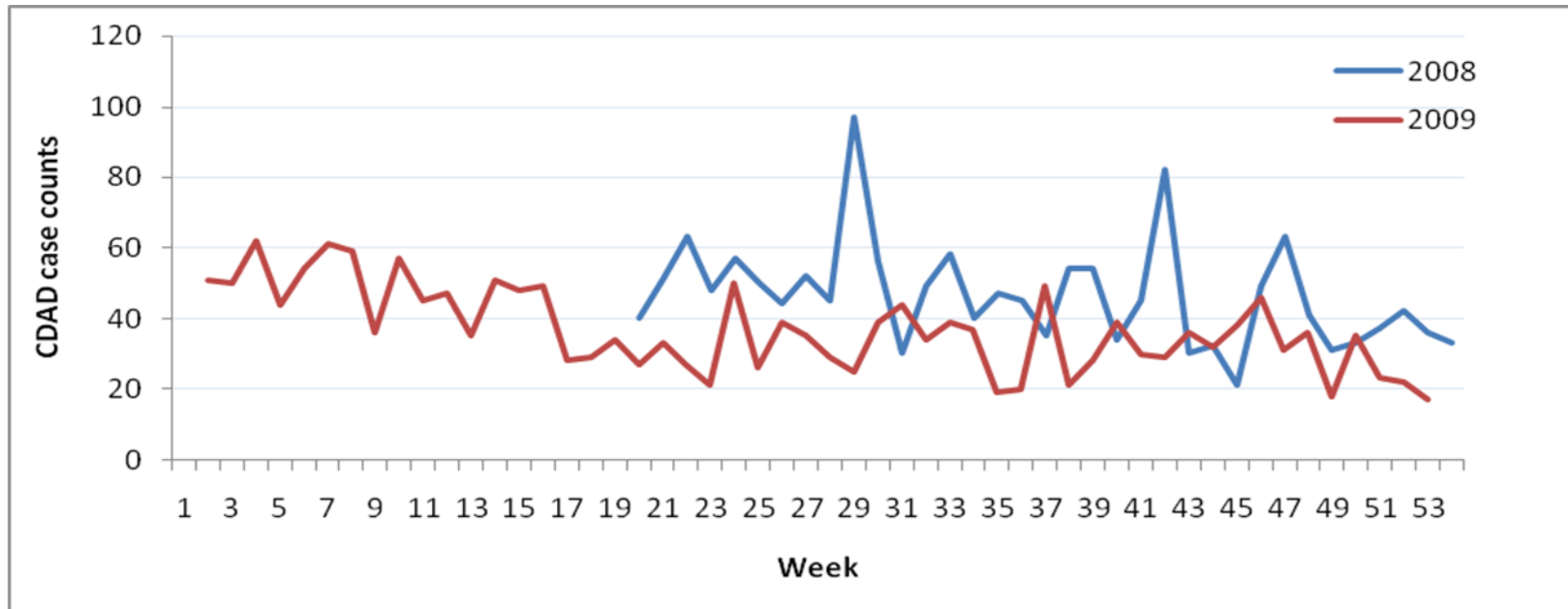


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New cases

- 7237 notifications of acute infectious gastroenteritis (AIG) in May '08 to Dec '09 period
- 3538 (49%) were CDAD cases
- All CDAD cases were laboratory confirmed

National Trends



National Crude Incidence Rate (CIR) per 100,000 Population by Year:

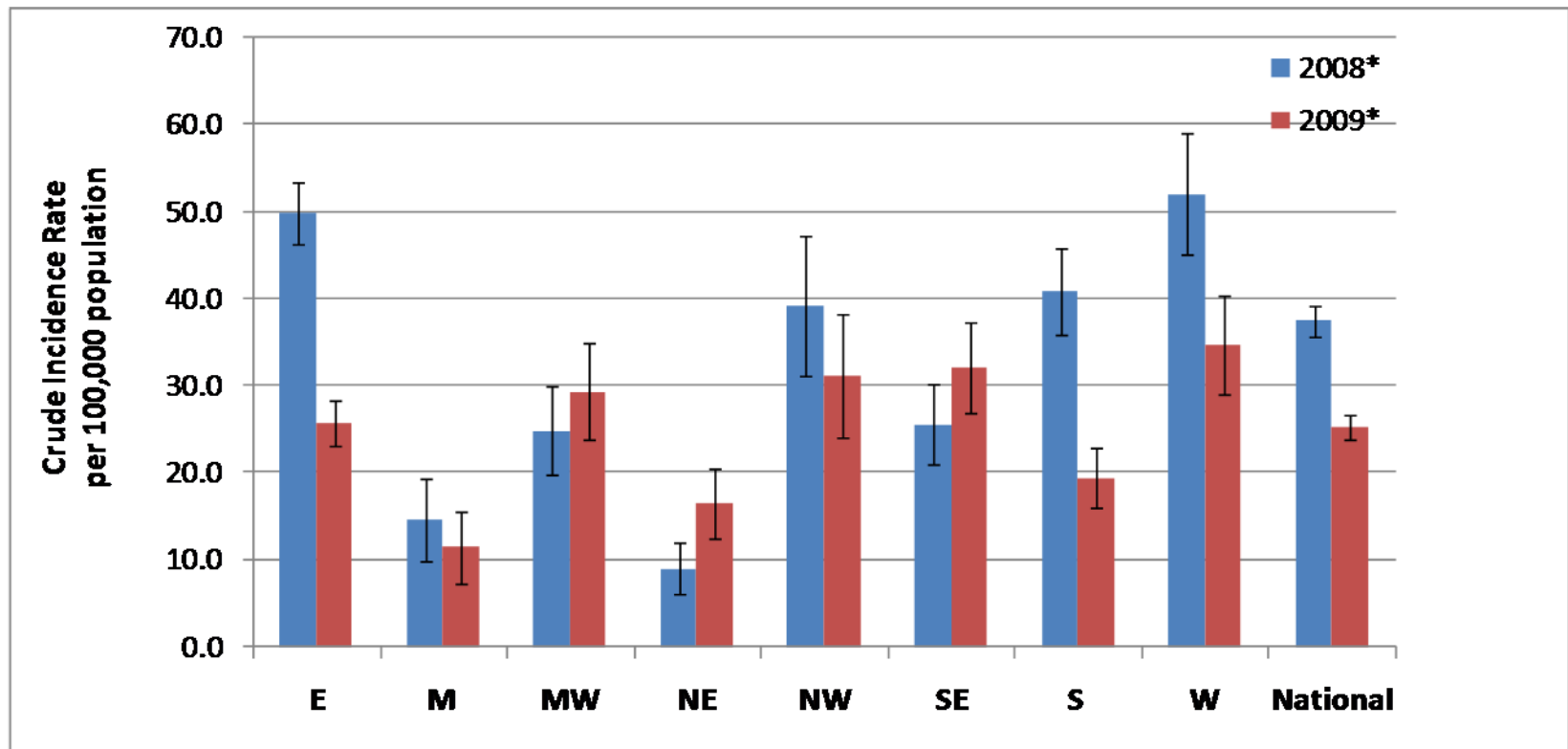
Weeks 19 - 52		52 week period	
2008*	2009*	2008**	2009
37.5	25.3	56.9	45.1

* Data based on comparable periods between 2008 and 2009 (weeks 19 – 52)

** 2008 data represents a 52 week period estimate based on 35 weeks of data

Incidence of CDAD in Ireland by Region

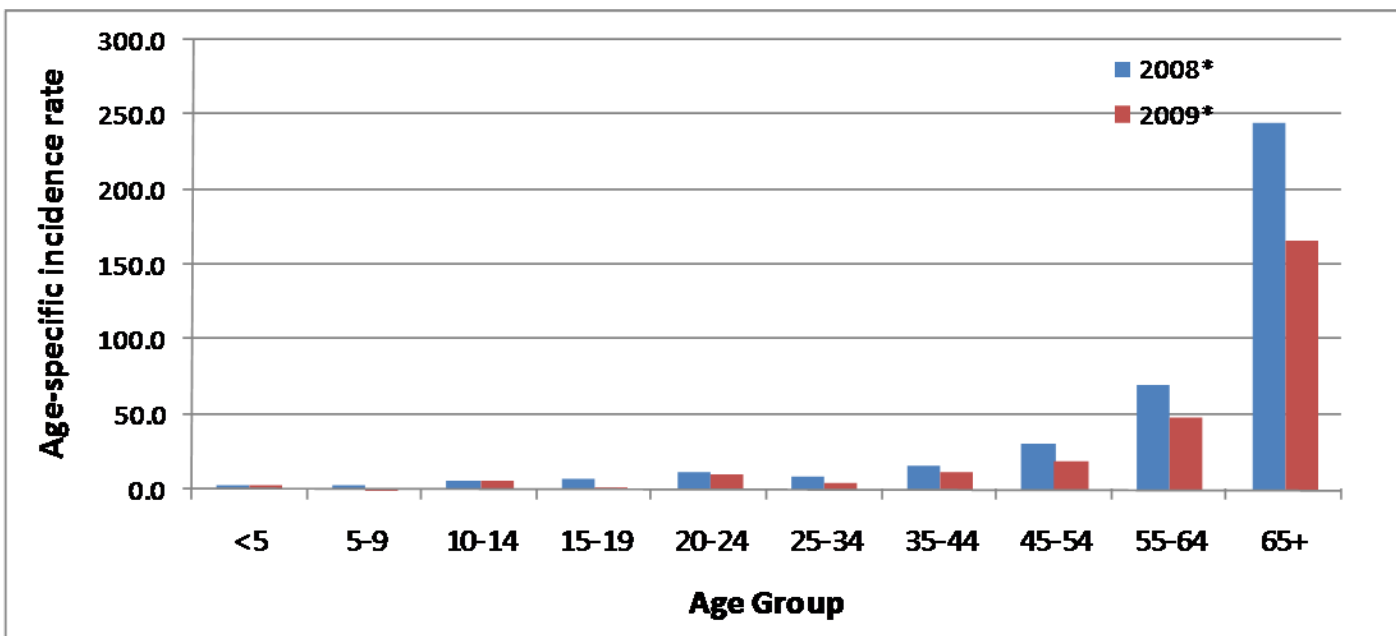
Weeks 19 – 52 (2008 vs 2009)



* Data based on comparable periods between 2008 and 2009 (weeks 19 – 52)

Incidence of CDAD in Ireland by Age

Weeks 19 – 52 (2008 vs 2009)



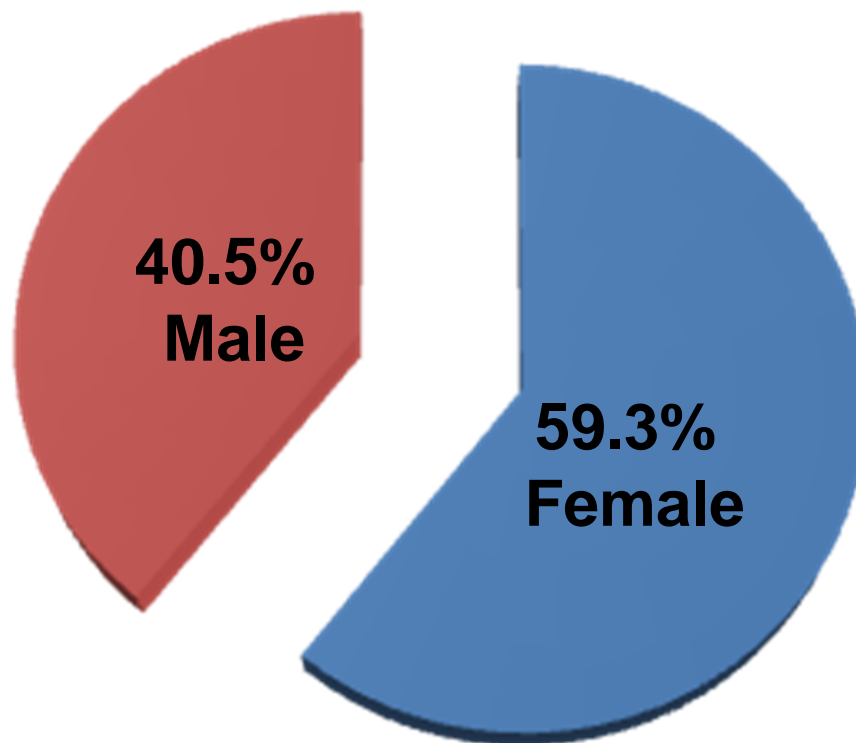
Crude incidence rate in 65+ age group:

Weeks 19 - 52		52 week period	
2008*	2009*	2008**	2009
245	165	372	303

* Data based on comparable periods between 2008 and 2009 (weeks 19 – 52)

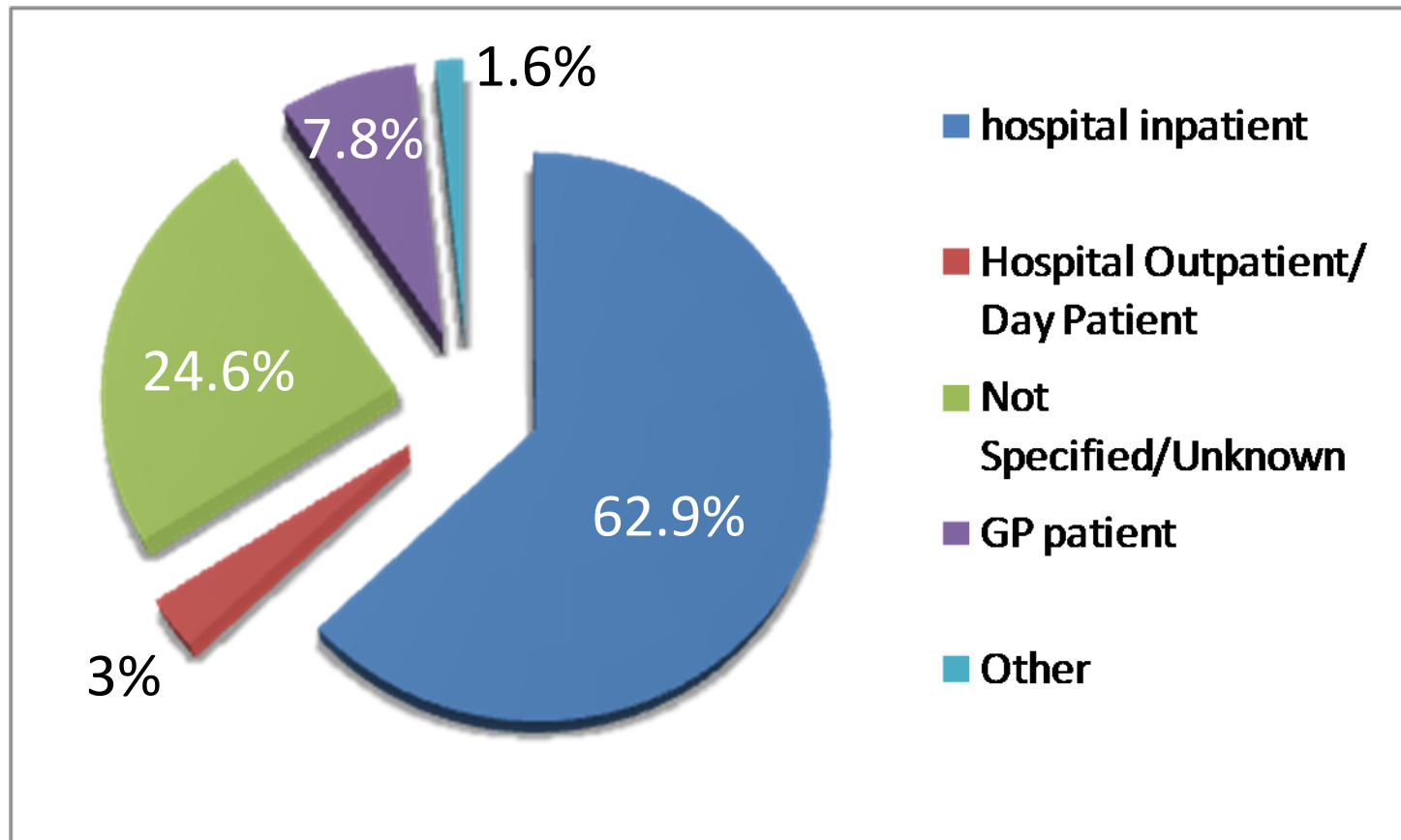
** 2008 data represents a 52 week period estimate based on 35 weeks of data

Male vs Females



Inclusive of 2008 and 2009 data

Patient Classification



Inclusive of 2008 and 2009 data



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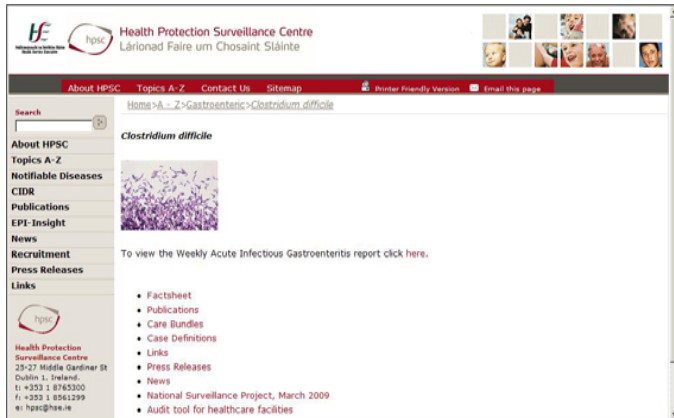


Conclusion

- 3538 CDAD notifications from May '08 to Dec '09
- All laboratory confirmed
- More prominent in older age groups
- 62.9% cases from healthcare institutions

Further information

<http://www.hpsc.ie/hpsc/A-Z/Gastroenteric/Clostridiumdifficile/>



- **Weekly *C. difficile* notifications**
- ***C. difficile* guidelines**
- **Audit tool for healthcare facilities**
- **Factsheets (for patients and infection control guidelines)**
- **Results of March 2009 *C. difficile* surveillance project**
- **Enhanced surveillance forms and reports**



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Factsheets

[Clostridium difficile Patient Information Leaflet](#)

File Size: (1.3Mb)
Publication Date: May 2008

[Precautions for caring for patients with CDAD](#)

File Size: (439kB)
Publication Date: May 2008

[Management of patients with C. difficile infection](#)

File Size: (153kB)
Publication Date: July 2008

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Health Protection Surveillance Centre
25-27 Middle Gardiner St
Dublin 1, Ireland.
t: +353 1 8765300
f: +353 1 8561299
e: hpsc@hse.ie



are fit to go home. Your doctor will let you know if you need to continue treatment at home.

Can Clostridium difficile diarrhoea come back?

Yes, some patients may suffer a relapse of diarrhoea. Please contact your GP/family doctor if you develop diarrhoea after you are discharged from hospital and let him/her know that you had Clostridium difficile recently. If you need antibiotics for another illness please tell your GP/family doctor that you recently had Clostridium difficile.

If I have Clostridium difficile diarrhoea at home how do I stop my family from catching it?

- To reduce the risk of spreading Clostridium difficile to others, take the following steps:
- Wash your hands thoroughly with soap and warm water and dry them after using the bathroom and before eating.
 - Be strict with your personal hygiene – do not share personal items such as towels and face cloths.
 - Machine wash soiled laundry separately from other washing on the hottest wash cycle suitable for linen and clothing.
 - Tell your family or carers to wash their hands thoroughly with soap and water and dry them after caring for you.
 - Try to avoid using the same toilet that your family members use. If this is not possible, ensure that the toilet is cleaned and disinfected after your use.
 - Clean surfaces in bathrooms on a regular basis with household detergents. If you have had diarrhoea, then disinfect with a mixture of bleach and water as instructed on the container. Pay special attention to sink taps, flush handle, toilet seats and lastly the toilet bowl

How to wash your hands properly

1. Wet your hands under running water
2. Lather with soap
3. Cover all parts of your hands
4. Rinse well under running water
5. Dry thoroughly

It should take around 30 seconds to wash your hands properly.



Further information:

You can also get more information from the Health Protection Surveillance Centre (HPSC) website www.hpsc.ie.

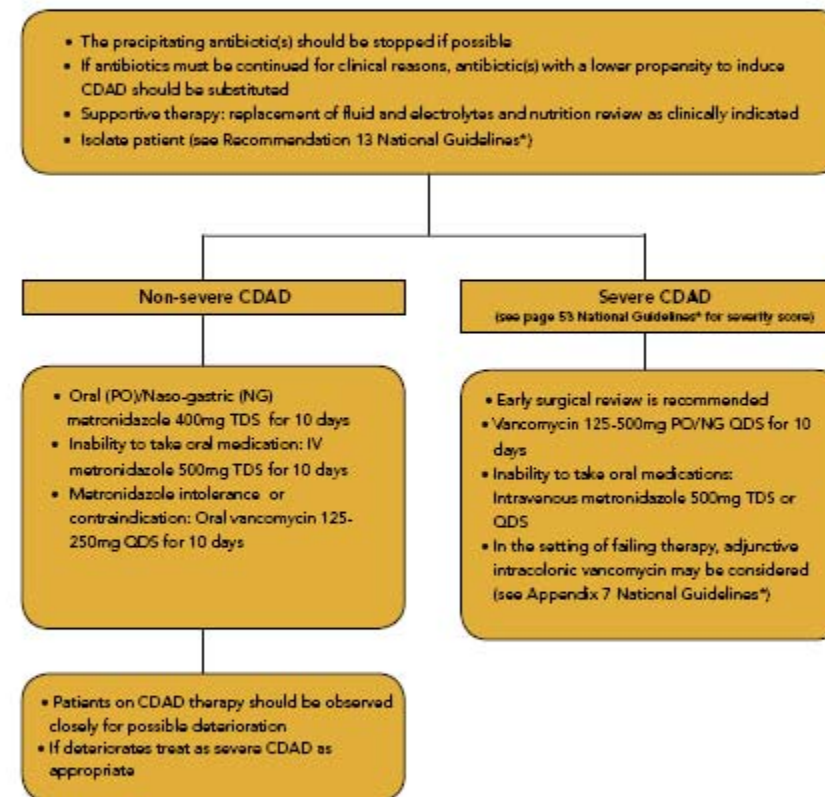
Go into the Topics A-Z section of the site and Clostridium difficile

Published on behalf of the Clostridium difficile Sub-committee of the Scientific Advisory Group, Health Protection Surveillance Centre.

CLOSTRIDIUM DIFFICILE

First-line specific therapy of *C. difficile* – associated disease (CDAD)

(For paediatric doses refer to the British National Formulary for Children)



* National *C. difficile* guidelines available at: <http://www.hpsc.ie/hpsc/A-Z/Gastroenteric/Clostridiumdifficile/Publications/>

Treatment of recurrent of *C. difficile* – associated disease (CDAD)

(For paediatric doses refer to the British National Formulary for Children)

- The precipitating antibiotic(s) should be stopped if possible
- If antibiotics must be continued for clinical reasons, antibiotic(s) with a lower propensity to induce CDAD should be substituted
- Supportive therapy: replacement of fluid and electrolytes and nutrition review as clinically indicated
- Isolate patient (see Recommendation 13 National Guidelines*)

First recurrence of CDAD

Use first-line specific therapy of CDAD; i.e.,

1. Oral/NG metronidazole 400mg TDS for 10 days (if not severe CDAD)
If inability to take oral medication: IV metronidazole 500mg TDS for 10 days
2. Vancomycin's superiority over metronidazole to treat recurrent CDAD remains unproven. The decision to use vancomycin to treat a first recurrence should be based on the presence of markers of severe CDAD, rather than previous metronidazole exposure

Patients on CDAD therapy should be observed closely for possible deterioration

Second or more CDAD recurrence

Consider tapered pulsed oral vancomycin (see Appendix B National Guidelines*)

Patients on CDAD therapy should be observed closely for possible deterioration

* National *C. difficile* guidelines available at: <http://www.hpsc.ie/hpsc/A-Z/Gastroenteric/Clostridiumdifficile/Publications/>



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Weekly Infectious Disease Report


HPSC can now provide, on a weekly basis, figures available on notifiable infectious diseases at national level by HSE area. No patient identifiable information will be published by HPSC. Figures in the Weekly Infectious Disease Reports should be regarded as provisional until a process of validation has been completed at the end of the notification year.

[Infectious Disease Report for Week 11, 2009](#) 

File Size: (180kB)

Weekly Acute Infectious Gastroenteritis Report

Since 4th May 2008, cases of toxin-producing *Clostridium* infectious gastroenteritis (AIG). This report presents the number of weekly AIG events by causative organism notified in Ireland.

[AIG - *C. difficile* Report for Week 10, 2009](#) 

File Size: (300kB)

Acute Infectious Gastroenteritis Notifications Week 10, 2009

Notification Period 08/03/2009 - 14/03/2009

Background Information:

Acute infectious gastroenteritis (AIG) is a notifiable disease. Under this category, the following are notifiable:

- * AIG of unknown aetiology
- * AIG due to rotavirus
- * AIG due to *Clostridium difficile* (since 04/05/2008, i.e. Week 19)

This report presents the number of weekly AIG events by causative organism notified in Ireland. The report is based on data extracted from the Computerised Infectious Disease Reporting (CIDR) system on the date indicated in the page footer.

These data are provisional and are subject to final data validation



Acute Infectious Gastroenteritis Events by HSE Area in Week 10, 2009

HSE Area	<i>Clostridium difficile</i>	Rotavirus	Unknown aetiology	Total
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Weekly
C. difficile
figures