**OVERVIEW**

B/ C **Acute diarrhoea is usually defined as:** 3 or more episodes a day, <14d and stool takes shape of pot. 1,2,3,4,5 B+ , 11 C

**Infectious diarrhoea is common (affecting a quarter of us annually 7B+ ) but should be viewed as a differential diagnosis 4 along side other potential causes of diarrhoea as no infectious agent is found in 60% of diarrhoeal illnesses. 25**

**Most infectious diarrhoea is a self-limited, usually viral illness 3,7 B+.** Nearly half of episodes last less than one day. 2

If diarrhoea has stopped, culture is rarely indicated unless there is a public health indication. 7

Do not give empirical antibiotics unless *Clostridium difficile* 13, 16, 27 or *Campylobacter spp.* 20 are suspected.

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**WHEN TO SEND a faecal specimen in cases of diarrhoea** 6,9, 10,11, 12, 26

**C** 1. **SYMPTOMS/SIGNS OR CLINICAL INDICATIONS**

| Patient systemically unwell needs hospital admission and/or antibiotics OR is immunocompromised. 26, 31 |
| Blood, mucus or pus in stool. 4 |
| In children who have acute painful, or bloody diarrhoea to exclude verotoxigenic *E.coli* infection including O157. 8, 12 |
| Recent antibiotics, 27 PPI or hospitalisation (*C. difficile*). 11, 13 |
| Diarrhoea after ‘exotic’ foreign travel (state countries); you should request ova, cysts and parasites (OCP). 1, 2 |
| Specifically when amoebae, Giardia or cryptosporidium are suspected 21, 29 especially if there is recurrent or prolonged diarrhoea (over 14 days) or travel to at-risk areas. |
| To exclude infectious diarrhoea in the differential diagnosis, eg patient has severe abdominal pain, exacerbations of inflammatory bowel disease or irritable bowel syndrome. 4 |
| Request virology where a definitive diagnosis is needed. 12, 26 |

**2. PUBLIC HEALTH INDICATIONS** 9,10, 11, 12

- Suspected food poisoning eg barbecue, restaurant, eggs, chicken, shellfish 9 - give details.
- Diarrhoea in high-risk situations for example: food handlers, health or child care workers, children at nurseries or after farm visits (*E. coli O157*). 8, 9, 10, 11, 12
- Contact with other affected individual(s) or outbreaks of diarrhoea in: care home (norovirus), community, family, etc when isolating an organism may help pinpoint cause. 9
- Contacts of patients where there may be serious sequelae 9 (*E. coli O157 or C. difficile*). Close household contacts of Giardia cases.

**WHAT TO SEND** (see next page for patient information on how to collect)

- **Only send loose stools as formed stools will not be examined by the laboratory.**
- **To ensure correct tests are performed please include travel destination and reason for sending sample on laboratory request form**

**C**

- For routine microbiology investigation send a single specimen (a quarter full specimen pot is the minimum needed)

**B**

- If the diarrhoea is post exotic foreign travel, prolonged or recurrent, you should give details and specifically request ova, cysts and parasites (OCP) and send three specimens at least two days apart, 28 B- as OCP are shed intermittently.
Interpreting the laboratory report

**B**
A bacterial pathogen is found in only 2–5% of specimens submitted.\(^1,5,7\) OCP reported only if looked for.

**C**
Salmonella, shigella, clostridium, campylobacter, E.coli O157 and cryptosporidium are routinely sought and reported.\(^26\)

As viruses, OCPs and other uncommon but potential pathogens are not routinely sought, a negative report does not mean that all infections have been excluded,\(^26\) eg there are no routine methods for detecting enterotoxigenic E. coli, the commonest cause of traveller’s diarrhoea.

### Antibiotic management of suspected and proven infectious diarrhoea

**B**
Antibiotics are not usually recommended for adults with diarrhoea of unknown pathology.\(^19\) The lab will happily advise.

Most patients in whom pathogens including salmonella and shigella are detected will not require specific treatment \(^19\) unless systemically unwell or treatment is advised by a microbiologist or consultant in communicable disease control.

**A**
**VTEC E. coli eg O157:** can cause haemolytic uraemic syndrome. Recommend urgent referral to secondary care all previously healthy children with acute painful, bloody diarrhoea or confirmed cases. Do *not* give antibiotics for *E. coli* O157 as this increases risk of HUS.\(^8,10,12\)

**Clostridium difficile:** Discuss with microbiologist. Stop unnecessary antibiotics and/or PPIs to re-establish normal flora. Prescribe 10-14 days metronidazole 400mg oral three times/day. 70% of patients respond after 5 days; 94% in 14 days. Monitor >85 year olds as mortality is increased.\(^11, 13, 16\)

If severe *C. difficile* (characterised by T >38.5; WCC >15; rising creatinine or signs/symptoms of severe colitis), or if recurrent within 30 days and +ve for *C. difficile* toxin prescribe vancomycin 125mg oral qds for 10-14 days.\(^13, 16\)

**A**
**Campylobacter:** Antibiotic therapy shortened duration of symptoms by 41 hours: if given within 3 days of illness (course duration 2.4 versus 4.1 days).\(^20\) If still unwell consider clarithromycin 250-500mg oral BD for 5-7days.\(^24\)

**Giardia lamblia:** metronidazole 400mg oral TDS for 7-10 days.\(^21, 29, 30\) *Entamoeba histolytica:* metronidazole 800mg every 8 hours for 5 days followed by diloxanide furoate, 500mg oral TDS for 10 days.\(^19, 27\)

**B**
**Blastocystis, Cryptosporidium and Dientamoeba fragilis** do not usually require treatment in otherwise healthy adults unless symptoms persist.\(^21,22,23\)

WHEN TO SEND a repeat specimen

**C**
Usually *unnecessary* unless OCP suspected, or advised by a microbiologist or consultant in public health, eg management of *E. coli* O157 or *Salmonella typhi* or to confirm clearance in the high risk situations outlined above.\(^9, 12\)

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This evidence-based guidance was developed by the PHE Primary Care Unit in collaboration with Clinical Knowledge Summaries (CKS), GPs, the BIA and other experts. It is in line with PHE SOPs, CKS and SIGN.