

Primary Care Antibiotics Newsletter



Welcome to latest antibiotics newsletter. Since the last newsletter incredible things surrounding the control of hospital acquired infections have continued to occur with the number of invasive **MRSA infections** identified at PHNT **falling by over 90%** in the last 10 years along with large falls in the rate of C difficile disease. Old demarcations between hospital and community acquired infections are becoming increasingly blurred by the greater use of healthcare treatments in the community, the impact this has on the selection of antibiotics has been significant. Finally a new antibiotic for use in primary care has been introduced onto the formulary.

Community associated C difficile

Clostridium difficile was first identified in new born babies in 1935 but the link with infection was not made until 1977 probably because young children are not susceptible to infection. Due to the concentrating of the elderly and infirm, most C difficile has been recognised in hospitals and residential care homes. The paucity of identified disease in the community may be because it is a rare disease in the community or more likely because we do not routinely look for it. All hospital in-patients who develop diarrhoea are tested for C difficile whereas samples from the community are only currently tested if there is a history of antibiotic use or if the test is requested. With the spread from North America of a hypervirulent clone of C difficile (O27/NAP-1) interest in C. difficile in the community has been re ignited. Since mandatory surveillance was introduced the number of C. difficile cases has fallen dramatically in both the community and hospital but at rates that mean about 50% of all cases are now identified in the community (figure 1)

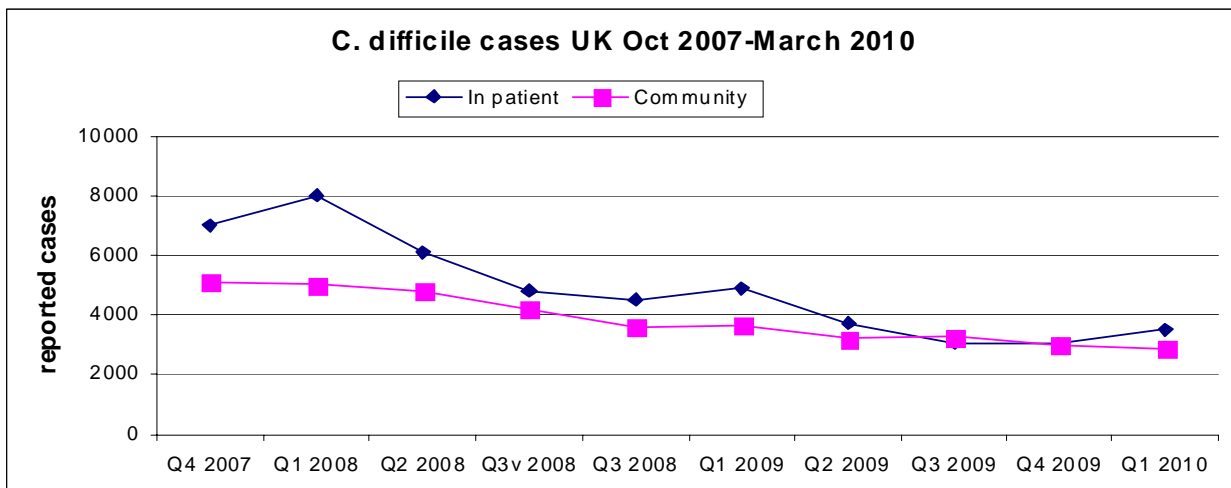


Figure 1

In the literature population rates of C. difficile of between 8 and 25 cases per 100,000 are noted, one quarter to one half of which are in the community at the time of onset. A study looking at sequential stools processed in Leeds and Truro showed that 2% of all stools received from primary care were positive for C. difficile toxin, one third of which had not been recently exposed to the classic C difficile risk factors of antibiotics or hospitalisation.

When faced with a sick patient for whom standard laboratory test have been unrewarding think of C difficile especially though not only if there is a history of recent hospitalisation or antibiotic treatment. The typical treatments for C difficile are 10 days of oral metronidazole or in severe disease 10 days of oral vancomycin.

Healthcare associated infections

A recent review of 231 significant bacteraemias identified at Derriford Hospital clearly showed that where the patient has **been** is as important as where the patient **is** when an infection is identified (see figure 2).

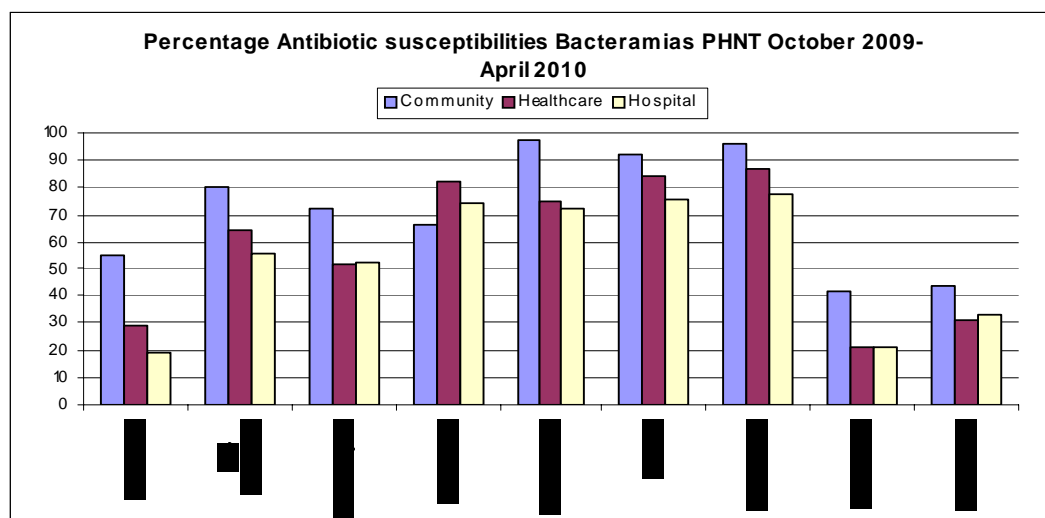


Figure 2
Admission from

home does not necessarily mean a community associated infection. If the patient has recently been discharged from a hospital, lives in residential care or is receiving intensive treatments eg. haemodialysis then they are more likely to be infected with multi drug resistant flora. At PHNT such healthcare associated bacteraemias were similar to true hospital acquired cases and different from community infections. The same phenomenon is apparent with other infections eg respiratory tract infections. Studies looking specifically at healthcare associated pneumonias have noted that such cases are more likely to be due to *S. aureus* and anaerobes (due to aspiration) than true community associated infections. When selecting an antibiotic regimen remember to consider not just where a patient is but where they have been and what they have been colonised with in the past (two thirds of patients who have been MRSA colonised in the past remain colonised).

Treatment of multi drug resistant urinary tract infections with Fosfomycin

Since the mid noughties the incidence of infections by gram negative uropathogens resistant to penicillin and cephalosporins due to the production of enzymes (ESBLs) has increased dramatically. These bacteria carry a multitude of resistance mechanisms leaving few treatment options other than nitrofurantoin as first line treatment for simple UTI. Where nitrofurantoin cannot be tolerated or is contraindicated fosfomycin is now available. This antibiotic can be taken as a single 3g sachet and in trials has been successful in treating simple UTIs in over 80% of occasions. This antibiotic is no longer licensed in the UK so as a prescriber you should be aware of your legal responsibilities. Fosfomycin is licensed in parts of Europe and is one treatment option recommended by the Health Protection Agency in their revised community treatment guidelines. The following process is now in place:

- Download and complete the Guidance form from the PAJF website, www.plymouthformulary.nhs.uk Chapter 5 under the entry for fosfomycin, and discuss with a Microbiologist. A product information sheet is available at the same site.
- Write out an FP10 prescription for a single 3g sachet and give this along with the Guidance form to the patient or nominee
- Inform the Pharmacy on 01752 439459

The patient or nominee can collect the drug from PHNT pharmacy by presenting the Guidance form and FP10.

The drug may be delivered by routine Pharmacy transport in selected cases after discussion with a Pharmacist at PHNT.