

Management of Outbreaks



Care Homes IPC Study Day

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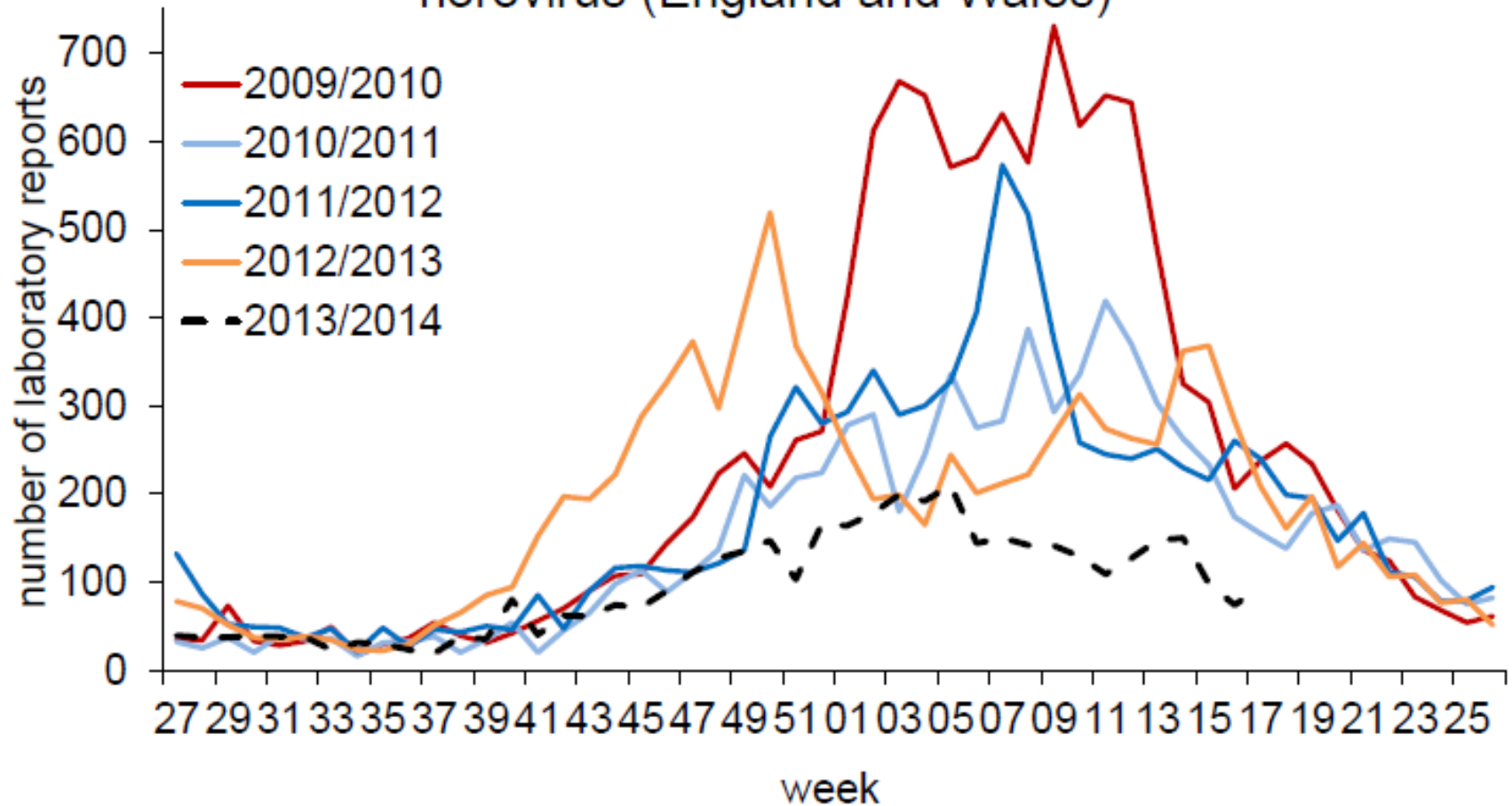
AV & Chiltern CCG's

Diarrhoea and/or vomiting

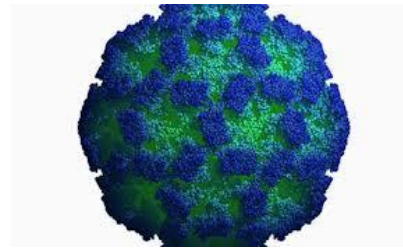
- ❑ May be bacterial or viral
- ❑ May be non-infectious in origin – but must be treated as infectious until proven otherwise
- ❑ The majority of viral gastroenteritis outbreaks are due to Norovirus (winter vomiting disease)
- ❑ Few come into the category of food-poisoning (although this should always be investigated), but contamination of food by aerosol or through poor hand hygiene can occur.

Norovirus Activity

Seasonal comparison of laboratory reports of norovirus (England and Wales)



Norovirus



- ❑ It is a highly infectious virus and only a few virus particles are needed to make people unwell.
- ❑ This virus can be transmitted by contaminated food or water, but is most commonly spread from person to person and from contaminated environments
- ❑ A large number of virus particles are present in vomit and stool.
- ❑ Immunity is short-lived and infection with one strain does not protect against infection with another strain.
- ❑ People can shed the virus in their stool for 48 hours after symptoms have stopped

Norovirus

Signs and symptoms

- ❑ Vomiting is the prominent symptom (may be projectile)
- ❑ Diarrhoea tends to be short-lived
- ❑ Other symptoms include: nausea, abdominal cramps, headache, myalgia, chills and fever
- ❑ Symptoms last 1-3 days but can be more severe in elderly frail residents.



Norovirus

Attack rates and costs

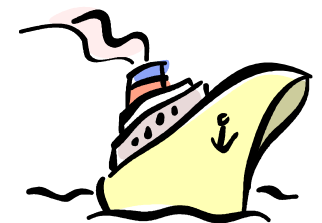
- ❑ Attack rates may be very high.
- ❑ When an outbreak is suspected, control measures must be swiftly implemented. Do not wait for results from the laboratory
- ❑ The effect of outbreaks is striking, both in disruption and costs to the establishment and patients
- ❑ Outbreaks can last up to 3 weeks and may bring about temporary closure.

Norovirus

- Most commonly spread from person to person and from contaminated environments as the virus is able to survive for many days.



- Outbreaks commonly occur in semi-closed environments such as hospitals, nursing homes, schools and on cruise ships, where people are in close contact with one another for long periods.



Norovirus is coming

Although norovirus can occur at any time outbreaks mostly happen in the winter.

- In groups discuss what you can do in advance so that you are prepared for the winter season.

What is an Outbreak?

- An outbreak of infection may be defined in the following way:
 - Two or more individuals suffering with the same infection and linked in some way
 - More people than expected in an area suffering from the same infection or symptoms of infection

Management of an outbreak

Action by person in charge

□ Inform

- Public Health England (PHE) – TVPHEC 0845 279 7879
- CQC

□ Record

- All the people affected (staff and patients), including name, age, diagnosis, date and time of onset of symptoms, symptoms, pattern of illness
- Date and time of specimens sent to laboratory

□ Ensure

- All advice associated with infection control and patient care is documented
- Control measures are put in place
- Staff and visitors are informed of and understand the advice given

For Patients



- ❑ Encourage and monitor fluid intake
- ❑ Monitor & record symptoms e.g. D&V
- ❑ Keep skin clean and dry
- ❑ Ensure good hand hygiene
- ❑ Offer analgesia
- ❑ Check temperature if appears feverish
- ❑ Ensure review by Dr if condition deteriorates
- ❑ Beware of anti-diarrhoeal medication
- ❑ Communicate and give clear instructions

Other key points

- Staff who are unwell should:
 - Submit a stool sample to their GP
 - Not return to work until 48 hours symptom free
- Do not leave food exposed as can become contaminated by virus particles
- Remember could be bacterial cause so menus from three days prior to the first report of illness should be kept

Stool Specimens

- ❑ Send stool samples from residents with **diarrhoea** for C&S **and** virology.
- ❑ Mark form 'Outbreak' and care home name.
- ❑ Send specimens promptly.
- ❑ Submit around 6 samples – do not need to send a sample from all cases
- ❑ Staff who are affected should submit a stool sample via their GP

Infection Control Measures

Standard Precautions

- Thorough hand hygiene with soap & water
 - Alcohol sanitiser is less effective against Norovirus and *C.diff*
 - Ample supplies of liquid soap and paper towels for staff, visitors and residents
 - Use an effective hand hygiene technique
- Gloves and aprons for personal care and for environmental decontamination, etc
- Dispose of waste as clinical waste
- Alginate bags for soiled linen

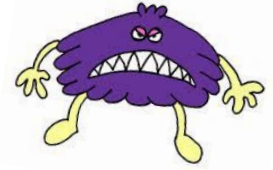
Infection Control Measures

Isolation

- Isolation of symptomatic residents
 - Single rooms with hand wash basins and en-suite facilities (otherwise designated facilities)
- Do not transfer residents out of the home unless essential – if so inform hospital so they can isolate resident
- Restriction of non essential visitors and staff , avoid use of agency staff and provide verbal and written explanations for residents, family and visitors
- No group activities
- Close to new admissions as instructed by PHE

Infection Control Measures

Cleaning



- Increased environmental cleaning schedule using a chlorine-releasing/bleach based disinfectant eg. Actichlor
 - Virus particles can travel several metres during vomiting and contaminate the surrounding environment.
 - Must be bleach based because antibacterial cleaners do not kill viruses
 - Chlorine-releasing disinfectant must be freshly made up and discarded after 4 hours
 - Pay particular attention to bathrooms and frequently touched surfaces such as door handles and handrails
- Clean and disinfect resident's equipment
- Terminal (deep) cleaning when the outbreak is finished

Infection Control Measures

Spillages

In an outbreak situation:

- Spills on hard surfaces should be soaked up with paper towels, area cleaned with soap and water and then wiped down with a 1000ppm solution of chlorine-releasing or bleach-based cleaner
 - Chlorine-releasing agents must not be used directly on vomit or urine
- Spillages on carpet e.g., faeces or vomit, must be cleaned up with soap & water and then the carpet need to be steam cleaned
 - If this doesn't happen virus can continue to survive in the carpet

Record keeping



■ Record

- All the people affected (staff and residents), including name, age, diagnosis, date and time of onset of symptoms, ongoing symptoms, pattern of illness
- Date and time of specimens sent to laboratory
- Maintain accurate stool chart for each resident affected.

■ Ensure

- All advice associated with infection control and resident's care is documented
 - Control measures are put in place
 - Staff and visitors are informed of and understand the advice given
- You may have a form something like this to fill in

Outbreak isn't stopping

- Identify possible reasons why the outbreak is not coming under control.

Outbreak isn't stopping!

What's happening?

- ❑ Is a bleach based product being used for cleaning?
- ❑ Is cleaning happening frequently enough?
- ❑ Are staff washing their hands correctly?
- ❑ Have staff come back to work before being 48 hours symptom free?
- ❑ Are residents with dementia wandering?
- ❑ Are door handles and handrails being wiped down?
- ❑ Has someone vomited and the area not been properly cleaned?
- ❑ Is there food exposed that could be contaminated?

Preventing the Spread of Infection.....



.....is in Your Hands!

Summary

- ❑ When an outbreak occurs rapid control measures can reduce the outbreaks duration and severity
- ❑ Soap & water must be used for hand hygiene
- ❑ Isolation of residents will reduce spread
- ❑ Thorough environmental cleaning with chlorine-releasing agents is essential
- ❑ Staff affected must obey the 48 hour rule

The End

□ **Any questions?**