<u>Second National Prevalence Survey on Healthcare Associated Infections and</u> <u>Antibiotic use in Irish Long-Term Care Facilities</u>

In May 2011, 5,922 residents in 108 Irish long term care facilities (LTCFs), 84 public and 24 private, including elderly care and intellectually disabled LTCF, took part in the survey. A prevalence survey is done on one particular day, thereby giving a snapshot (similar to taking a photo) of residents with an infection / on antibiotics in a LTCF.

What did the 2011 survey find?

Respiratory and urinary infections were most common: 4.1% (242) residents had an infection on the day of the survey. The most common infections are summarised in Figure 1.

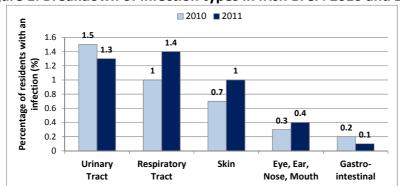


Figure 1: Breakdown of infection types in Irish LTCF: 2010 and 2011

High quality nursing and medical care is provided: Not all residents have an equal risk of acquiring an infection. For example, older residents or residents with broken skin (e.g., wounds) and/or medical devices (e.g., IV lines or urinary catheter) are more at risk of infection than those without. Risk factors for infection are summarised in Figure 2 and reflect a high dependency level in Irish LTCFs. The low rate of pressure sores and urinary catheter use despite a high proportion of incontinent and/or immobile residents reflects high quality nursing and medical care provided within in the facilities.

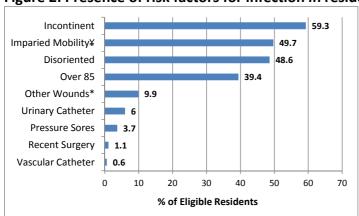


Figure 2: Presence of risk factors for infection in residents

One in ten (601) residents were on antibiotics: Antibiotics were prescribed for treatment of infection (58%, 340 residents) and for prevention 'prophylaxis' of infection (39%, 244 residents). (Figure 3) Only 45% (55) of residents that were prescribed antibiotics for a urinary infection (UTI) had a specimen taken for culture.

100.0 % of Antibiotic Usage 80.0 60.0 40.0 20.0 0.0 2011 2010 2010 2011 2010 2011 Respiratory **Urinary Tract** Skin or wound Tract 0.7 0 % Unknown Use 0.6 0 1.0 0 ■ % Therapeutic Use 34.1 37.7 93.4 79.6 90.2 90.3 ■ % Prophylactic Use 65.9 61.7 6.6 19.4 9.8

Figure 3. Why were antibiotics prescribed: Infection type and reason for the prescription?

How can resident care be improved by this survey

1. Sharing and discussing results & planning improvements

Participating LTCF were issued with individual reports in early August 2011 so the results can be shared, areas that may require improvement discussed and preventative programmes commenced.

2. Ensuring residents and staff get the appropriate vaccinations to prevent respiratory infection in residents.

One of the most common infections recorded was respiratory infection. Respiratory infection due to influenza virus can results in significant illness and potential death, especially in older residents and in the case of influenza virus infection, a potential cause of outbreaks. The importance of staff influenza vaccination cannot be overemphasised. Annual influenza vaccination is recommended for all individuals aged 50 years and older. However, as the elderly may not develop adequate antibody responses following vaccination, staff also need to be vaccinated to protect their patients because of their close interactions with them.

3. Ensuring procedures in place to minimise risk factors for infection.

LTCF should ensure that procedures are in place (e.g., care bundles, checklists etc) as recommended by national guidelines, to prevent infection associated with risk factors including medical devices (e.g., urinary catheters), wounds and inappropriate antibiotic use (e.g., *C. difficile* infection).

4. Ensure guidelines for correct antibiotic prescriptions are available

Antibiotic prescriptions in Irish LTCF (10.2%) are higher than the EU average of 5.9%. There is little evidence that antibiotics prevent the onset of UTI. If UTI is suspected a urinary dipstick should be performed and if infection is likely, a specimen sent for culture so that antibiotic therapy can be altered appropriately.

Where can I get further information?

Survey results and educational materials are available at: http://www.hpsc.ie/hpsc/A-Z/MicrobiologyAntimicrobialResistance/InfectionControlandHAI/Surveillance/HCAIinlongtermcarefacilities/