

# Clostridium difficile Infection (CDI):

## What is Clostridium difficile Infection?

(CDI) is a serious illness resulting from infection of the internal lining of the colon by *C. difficile* bacteria. The bacteria produce toxins that cause inflammation of the colon, diarrhoea and, in some cases, death.<sup>1</sup>

## HOW DOES IT OCCUR?

CDI mostly occurs from use of broad-spectrum antibiotics that disrupt normal bowel flora allowing *C. difficile* bacteria to flourish.<sup>1,2</sup>

*C. difficile* exists in the environment as spores (dormant seed-like structures)<sup>2</sup>

*C. difficile* spores can be transmitted to patients from the environment or from contaminated hands.<sup>2</sup>

## Clinical Outcomes

**CDI SYMPTOMS** range from mild, self-limiting diarrhoea, to severe, life-threatening bowel complications.<sup>3</sup>

Increased risk of developing further infections:

**45-65%**<sup>4</sup>

Patients with recurrence are at a higher risk of repeated infections.<sup>4</sup>

**Extended hospitalisation:** typically by around **6-21** days or greater.<sup>5,6,7,8,9</sup>

In hospitals, CDI causes/contributes to **death in 3-30%** of patients within 30 days of diagnosis<sup>10,15</sup>

25% of people treated with current *C. difficile* therapies may suffer a second infection.<sup>11</sup>

## How common is CDI?

**71%**

Approximately **71%** of CDI infections occurred in a healthcare facility in 2011 with **78%** of these occurring in hospital.<sup>12</sup>

**78%**

CDI is currently **2 to 4** times more common than MRSA in healthcare facilities.<sup>13,14</sup>

The proportion of CDI cases occurring or originating in nursing homes has increased in recent years to **13%**.<sup>15,16</sup>

**13%**

## Who is at risk?

CDI is seen most commonly in hospitals, nursing homes and long-term care facilities.<sup>12</sup> It affects the most vulnerable members in society:

### Risk factors for CDI are:

- Recent use of antibiotics<sup>18,19,20</sup>
- The elderly (over 65 years)<sup>17,20</sup>
- Chronic underlying illness: CDI is a particular risk in those treated for cancer<sup>21,22</sup>
- Recent hospitalisation<sup>23</sup>

Studies in the UK estimated additional costs of **£6,986** per patient to the cost of hospitalisation.<sup>5,15</sup>

**20%**

In Ireland, approximately 20% of CDI cases are now reported to originate in the community.<sup>15</sup>

Alcohol Gel Does **NOT** Kill *C. difficile* Spores<sup>15</sup>

## How can CDI be prevented?

- **Soap and Water**  
Hands should be washed with soap and water before and after contact with patients.<sup>15</sup>
- **Disposable gloves and gowns**  
Wear disposable gloves and gowns when visiting or attending to a patient with CDI.<sup>24</sup>
- **Prudent use of antibiotics**  
Taking antibiotics only when an infection has been caused by bacteria.<sup>24</sup>

### Latest Irish Findings on CDI<sup>25</sup>

Only **one in three** Irish people have heard of CDI<sup>25</sup> despite the fact that it is significantly more common than MRSA<sup>15</sup>.

of people believe that hand sanitizer gel will prevent CDI **26% believe it won't prevent CDI and 39% don't know**<sup>25</sup>.

When asked which hospital acquired infection was more common to pick up in a hospital...

**85%** said MRSA<sup>25</sup>

**8%** said CDI<sup>25</sup>

**7%** did not know<sup>25</sup>

...This is despite the fact that approximately **71%** of CDI cases occur in a healthcare facility<sup>25</sup>.

#### Notes:

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