Main points

Introduction

<u>Table 1</u> shows the annual totals for 2000 to 2020 along with the numbers for the quarters in which the deaths were registered. Information about the three bases on which figures for Clostridium difficile deaths have been produced is given in the methodology paper.

Deaths for which Clostridium difficile was the underlying cause

- In 2020 there were 39 deaths for which Clostridium difficile was the underlying cause, compared with 36 in 2019. This is a higher number than each of the previous three years. However, it is still lower than all but two (2000 and 2014) of the other 17 years for which these figures are available (2000-2016).
- Registrations of deaths for which Clostridium difficile was the underlying cause increased, year by year, up to 2008, when there were 248 such deaths, then fell sharply over the next two years to 65 in 2010. The latest ten years' numbers have all been in the range from 28 (in 2018) to 70 (in 2011), well below the higher level seen from 2006 to 2009 (between 139 and 248 deaths).

Deaths to which Clostridium difficile contributed, without being the underlying cause

- In 2020, there were a further 68 deaths for which Clostridium difficile was a contributory factor, compared with 60 in 2019. In 2020, Clostridium difficile was a contributory factor to fewer deaths than in 18 of the previous 20 years for which these figures are available. The only lower figures are 66 in 2018 and 60 in 2019.
- The number of deaths for which Clostridium difficile was a contributory factor rose in most of the years up to 2008, when there were 517 such deaths, then fell sharply over the next three years to 99 in 2011. The latest ten years' numbers have all been in the range from 60 (in 2019) to 109 (in 2015), well below the level seen from 2005 to 2010 (between 205 and 517 deaths).

Deaths for which Clostridium difficile was mentioned on the death certificate (either as the underlying cause or as a contributory factor)

• There was a total of 107 deaths in 2020 for which Clostridium difficile was mentioned on the death certificate (either as the underlying cause of death or as a contributory factor), 11 more than in 2019. This is a higher number than

each of the previous three years. However, it is still lower than all of the other 17 years for which these figures are available (2000-2016).

• The total number of deaths for which Clostridium difficile was mentioned (either as the underlying cause of death or as a contributory factor) increased in most of the years from 2000 to 2008, when it was greatest (765 such deaths), then fell sharply over the next three years to 169 in 2011. The latest nine years' numbers have all been in the range from 94 (in 2018) to 160 (in 2013), well below the level seen from 2004 to 2010 (between 239 and 765 deaths).

Quarterly numbers of deaths for which Clostridium difficile was mentioned on the death certificate (either as the underlying cause or as a contributory factor)

- On a quarterly basis, the number of deaths for which Clostridium difficile was mentioned (either as the underlying cause of death or as a contributory factor) reached a peak at 225 in the first quarter of 2008, then fell in every subsequent quarter to 62 in the third quarter of 2010. Over the six years 2011 to 2016 there were an average of 38 such deaths per quarter. However, in 2017 to 2020 only two quarters have had figures close to that level, with the average per quarter being around 25 over the four-year period.
- The highest quarterly figures since the start of 2011 have been 53 in the fourth quarter of 2013 and 50 in the second quarter of 2011. Up to 2015, the lowest quarterly figures were 27 in the second quarter of 2014 and in quarters two and three of 2000, and 29 second quarter of 2015. Such values fall within, or only slightly outwith, the "likely range" that would be expected if the number of deaths represented the outcome of a "Poisson process" with an underlying rate of 40 per quarter. (In statistical terms, a "Poisson process" is a process in which events occur at random, with the probability of an event occurring depending upon the underlying rate of occurrence see the note "Fluctuations in the numbers of deaths may be represented as the outcome of a Poisson process", which is available via <u>Fluctuations in and possible unreliability of death statistics for small areas, for small sub-groups of the population, or for short periods page.</u>
- The unusually low numbers in the first two quarters of 2014 led to the total for that year as a whole being (at that time) the lowest since 2000. Since the start of 2016 less than 40 deaths have been recorded in each quarter and 2020 is the first year where all four quarters recorded less than 30 deaths.

Clostridium difficile deaths by NHS Board and by place of death

- Table 2 contains breakdowns by NHS Board of residence and Table 3 shows the place of death, where Clostridium difficile was the underlying cause of death.
- Tables 4 and 5 contain similar breakdowns to Tables 2 and 3 respectively, for deaths where Clostridium difficile was a contributory factor, but was not the underlying cause.
- Tables 6 and 7 contain similar breakdowns to Tables 2 and 3 respectively, for all deaths where Clostridium difficile was mentioned on the death certificate (either as the underlying cause or as a contributory factor).