









Case study: faecal microbiota transplant

The challenge

-  Clostridium difficile (C.diff) is a type of bacteria that causes diarrhoea. Often affecting people who have been on antibiotics, it is often also known as a 'hospital acquired infection'
-  C.diff infections cause severe diarrhoea, fever, abdominal pain and can be fatal in elderly patients
-  In 2021-2022, 27.6 per 100,000 individuals contracted C.diff infections
-  Between 10-20% of patients do not respond to treatment with antibiotics, and success rates of antibiotics in relapsing C.diff infection can be as low as 30%
-  In severe cases, C.diff infections can cause life-threatening diarrhoea, toxic megacolon (acute distension of the colon), and colon perforation

Our impact

-  Birmingham research has shown that Faecal Microbiota Transplants (FMT) – where 'good bacteria' from a healthy donor is transferred to the gut of a patient with the infection – are highly successful in treating patients with C.diff infection
-  The Microbiome Treatment Centre at the University of Birmingham is the first in the UK to be licenced for FMT preparation by the Medicines and Healthcare products Regulatory Agency (MHRA), supplying NHS patients across 52 NHS Trusts
-  UK guidelines have been adopted by the joint British Society of Gastroenterology (BSG) and Healthcare and Infection Society (HIS) recommending the use of FMT for recurrent and refractory C.diff infection
-  Costs to the NHS have reduced as FMT is a significantly cheaper treatment option than repeated courses of specialist antibiotics
-  FMT is now being investigated as a treatment for other conditions such as ulcerative colitis