

### Why is growing resistance to antibiotics so very serious?

- 1 THE danger posed by growing resistance to antibiotics is as great as 'terrorism' and 'climate change', the government's chief medical officer for England has said. Dame Sally Davies warned that routine operations could become 'deadly' within 20 years if people lose the ability to fight off infection and called on the pharmaceutical industry to research and develop new forms of antibiotics.
- 2 As the threat from one form of bacteria is brought under control, other bugs take its place. Hospital infections from *MRSA* and *C.difficile* have fallen sharply – by up to 80 per cent – in the past ten years. But they have been replaced by other bacteria such as *E.coli* and *klebsiella*, which are now the most 'frequent agents' of hospital-acquired infection in the UK. Dr Ibrahim Hassan, a consultant microbiologist at Wythenshawe Hospital in Manchester, says he is seeing more and more cases where patients have infections that are resistant to antibiotics. "You don't have too many options in terms of treatment," he said. "In some hospitals we see patients come in with an infection for which there is no effective antibiotic."
- 3 Antibiotics have been 25 too readily, explains microbiologist Professor Valerie Edwards-Jones. "Today, GPs are less likely to do so," she says, "but for many years they were dished out recklessly, resulting in resistance to their effects. Adding antibiotics to animal feed was disastrous," she adds, "because it introduced the drugs into the food chain and increased the opportunity for resistance. Over time, micro-organisms are able to mutate until they can survive exposure to the drugs."
- 4 The drug industry hasn't developed a new class of antibiotics since the late 1980s and there are very few new antibiotics in the pipeline. "The pharmaceutical industry needs to be incentivised to create new drugs," says Davies. "Making antibiotics is not viewed as profitable. We may have to work with the pharmaceutical companies in public-private partnerships, and we may have to do some development of antibiotics on a public basis." She adds that if no action is taken we will find ourselves in an almost 19th century environment where people die from infection when they undergo standard surgery. Operations such as hip replacements would become far more risky and treatments that suppress the immune system such as chemotherapy and organ transplants would become almost impossible.
- 5 Clearly, the medical profession needs new and effective antibiotics. But Edwards-Jones says the war against bacteria starts at home with basic

hygiene. She also urges more awareness of the appropriate use of antibiotics — for instance, the fact that people need to be told 95 per cent of sore throats are caused by viruses — for which antibiotics are useless. Davies says there needs to be more education of doctors, nurses and vets, so that they know the risks and advantages of prescribing antibiotics and think about that balance. She also believes medical professionals need to spend time with patients explaining why they're not prescribing the drugs.

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## Tekst 6 Why is growing resistance to antibiotics so very...

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- 1p 24 How does paragraph 2 relate to paragraph 1?
- A It contradicts what is said in paragraph 1.
  - B It elaborates on what is said in paragraph 1.
  - C It modifies what is said in paragraph 1.
- 1p 25 Which of the following fits the gap in paragraph 3?
- A banned
  - B consumed
  - C ignored
  - D prescribed
  - E produced
- 1p 26 What is the main function of paragraph 3?
- A to describe the general effects of growing resistance to antibiotics
  - B to make clear what caused the growing resistance to antibiotics
  - C to present solutions for the problem of growing resistance to antibiotics
  - D to show who will be affected by the growing resistance to antibiotics
- “The drug industry hasn’t developed a new class of antibiotics since the late 1980s” (paragraph 4)
- 1p 27 What reason for this fact is given in paragraph 4?
- A Manufacturers think they earn too little money with the production of new antibiotics.
  - B New developments in medical care have made producing new antibiotics unnecessary.
  - C Research into producing new antibiotics seems to have reached a dead end.
  - D The government refuses to participate in financing the production of new antibiotics.
- 1p 28 How does the writer conclude the article?
- A by highlighting the different ideas about the problem discussed in the article
  - B by illustrating the problem discussed in the article with everyday examples
  - C by presenting some ways to help tackle the problem discussed in the article
  - D by showing that experts agree on how to solve the problem discussed in the article
  - E by summarising the main causes for the problem discussed in the article

- 2p 29 “Why is growing resistance to antibiotics so very serious?” (titel)  
Geef van elk van de volgende citaten aan of deze wel of niet een antwoord geeft op deze vraag.
- 1 “Hospital infections from *MRSA* and *C.difficile* have fallen sharply – by up to 80 per cent – in the past ten years.” (alinea 2)
  - 2 “Over time, micro-organisms are able to mutate until they can survive exposure to the drugs.” (einde alinea 3)
  - 3 “treatments that suppress the immune system such as chemotherapy and organ transplants would become almost impossible” (einde alinea 4)
  - 4 “95 per cent of sore throats are caused by viruses – for which antibiotics are useless” (alinea 5)
- Noteer het nummer van elk citaat, gevolgd door “wel” of “niet”.

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#### Bronvermelding

*Een opsomming van de in dit examen gebruikte bronnen, zoals teksten en afbeeldingen, is te vinden in het bij dit examen behorende correctievoorschrift, dat na afloop van het examen wordt gepubliceerd.*