

Rabies cases increase in the Philippines

Claire Wallerstein, *Manila*

The number of cases of rabies in the Philippines—which currently ranks fourth worldwide in incidence of the disease—is increasing, despite government promises to rid the country of the problem by 2020. In 1998, 362 Filipinos died of rabies, compared with 321 in 1997 and 337 in 1996. About 10 000 dogs are believed to be infected with the disease each year.

The underlying problem is that public awareness of the disease remains poor and that dog owners are not taking up the offer of subsidised rabies immunisations, according to Dr Jose Abella, director of the Department of Health's Communicable Disease Control Service. However, another problem is that the government suspended its manufacture of rabies vaccine in 1996 when its biological production service was relocated. It is now trying to buy 10m pesos (£167 000) worth of the vaccine from international suppliers. There are only 42 000 doses of the vaccine in the country, which is not nearly enough to immunise a dog population of seven million.



Many Filipinos eat dogs, which may help spread rabies

The first step is to educate people on how to reduce the risk of contracting rabies from dogs. "Many people still believe rabies is only transmitted by bites from stray dogs. In fact, 88% [of infections] are caused by pet dogs and about 2% by cats," said Dr Luningning Elio-Villa, coordinator of the Department of Health's rabies control programme. Despite a recently passed Animal Welfare Act, she warned that another major problem is that many people still eat dogs. If the dog has bitten a human—something that is associated with an increased risk of the dog being rabid—the dog is more likely to be killed and eaten. "If the dog is cooked, the virus is destroyed, but many are eaten raw. And anyone cutting up a dead dog can trans-

mit the virus to themselves if they touch their eyes or lips while they have traces of the dog's fluids on their hands," she said.

The incubation period for rabies can be as long as five years, although 95% of those infected develop the disease within one year. Once a patient starts to show symptoms he or she usually dies within 10 days. There is no treatment except for sedation, and patients brought to the country's only rabies ward in the San Lazaro Hospital in Manila are generally tied down until they die. Most victims are young men or boys who are bitten after taunting dogs.

Dr Elio-Villa said that she hopes to start mass immunisation programmes and to set up rural bite treatment centres. □

British GP cleared of murder charge

Clare Dyer, *legal correspondent, BMJ*

Dr David Moor, a British GP charged with murdering an elderly patient, was unanimously cleared by a jury this week at Newcastle Crown Court. The verdict was reached in an hour.

Dr Moor, 52, of Stamfordham, Northumberland, pleaded not guilty to the murder of retired ambulanceman George Liddell, 85, by injecting him with a lethal dose of diamorphine. Had he been convicted, he would have been sentenced to life imprisonment, which is the mandatory sentence for murder. The case reignited the debate over euthanasia and whether the mandatory life sentence, which is bound to deter juries from convicting a caring doctor, should remain.

Dr Moor, who has since retired from practice, was arrested and prosecuted after taking part in a debate in the media about voluntary euthanasia. He was quoted as saying he had helped a number of patients to have pain free deaths. The court was told that he visited Mr Liddell, who had had surgery for bowel cancer, at his daughter's home and, after finding him in agony, injected him with an overdose of diamorphine.

The judge, Mr Justice Hooper, told the jury: "You have heard that this defendant is a man of excellent character, not just in the sense that he has no previous convictions but how witnesses have spoken of his many admirable qualities. You may consider it a great irony that a doctor who goes out of his way to care for George Liddell ends up facing the charge that he does. You may also consider it another great irony that the doctor who takes time on his day off to tend to a dying patient ends up on this charge."

English law recognises a doctrine of "double effect," under which doctors may lawfully give pain killing drugs with the intention of relieving suffering, even if the result is the patient's death. But they commit murder if they give drugs with the intention of killing the patient. □

Researchers discover "feedback loop" in allergic reactions

Scott Gottlieb, *New York*

Researchers testing an experimental anti-allergy drug think that they have discovered a new immunological feedback loop that is involved in the basic mechanism driving allergic reactions (*Journal of Immunology* 1999;162:5183-90).

The new biochemical loop links the amount of IgE antibody to the number of immune cell IgE receptors scattered on preformed immunological mediators such as those found in mast cells. On exposure and binding to specific allergens, IgE triggers a cascade of biological events that leads to the allergic reaction.

Free floating IgE is found in

serum, and it is also particularly abundant in the lungs and gastrointestinal system of people with allergies.

In the latest research, volunteers known to have allergies took an experimental anti-IgE drug. Over time, the amount of circulating anti-IgE in their blood decreased by as much as 99%. Previously, it had been thought that anti-IgE drugs worked by blocking the binding of IgE to receptors which, in turn, blocked the receptor-mediated allergic response. But researchers at the Johns Hopkins School of Medicine found that the number of IgE

receptors on certain immune cells decreased in tandem with the drop in free floating IgE antibodies, indicating that the quantity of the antibodies and the IgE receptors closely correspond to one another.

"To stop allergies, you need to maintain low counts of both IgE antibodies and IgE receptors," said Dr Sarbjit Saini, the study's lead author. "A slight increase in either restores the amount of histamine released." Anti-IgE antibodies, which have been in clinical development for several years, work by binding to the same region of the IgE receptor that is typically used by the IgE molecule. The anti-IgE antibodies end up "complexing" with free floating IgE in a person's serum and in so doing, eliminate the ability of IgE molecules to bind to cells containing inflammatory mediators. □