NEWS

Nurse with Ebola virus remains in critical condition

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London

The UK nurse infected with the Ebola virus while working in Sierra Leone remains in a stable but critical condition, the Royal Free Hospital has said.

Pauline Cafferkey, a public health nurse at Blantyre Health Centre in Lanarkshire, had just returned home to Scotland after a three week stint at Save the Children's Kerry Town treatment centre in Sierra Leone when she reported feeling unwell. She was admitted to Gartnavel General Hospital but was then transferred to the high level isolation unit at the Royal Free Hospital in north London on Monday 29 December.¹

After discussion with medical staff Cafferkey agreed to be treated with convalescent blood plasma and an experimental antiviral drug. At the beginning of her treatment the hospital said that she was sitting up in bed, talking and reading, but on Saturday her condition deteriorated, and the hospital described it as critical.

Currently no treatments are licensed for Ebola, although a trial of the drug brincidofovir, led by partners including the University of Oxford and funded by the Wellcome Trust, is currently taking place in west Africa.

Peter Horby, associate professor with the epidemic diseases research group at Oxford and principal investigator of the west Africa trial, said that patients with Ebola virus who were evacuated to countries with access to high tech medical interventions had seen better survival rates.

"But we must not lose sight of the fact that Ebola is one of the most virulent viruses we know," said Horby. "Even with advanced medical care Ebola remains an extremely serious disease. We desperately need a better understanding of the disease process and better, specific treatments."

Horby added that doctors and researchers still did not know whether the treatments received by Cafferkey were "effective, useless, or perhaps even harmful . . . This underlines the urgent need to properly evaluate experimental therapies for Ebola, including convalescent plasma, so we know what works and what does not."

Meanwhile, Save the Children has promised a thorough review of procedures at its Kerry Town treatment centre to understand how Cafferkey became infected. Rob McGillivray, who is leading Save the Children's Ebola response in west Africa, told the BBC that protocols at the treatment centre were constantly under review but that "because of this very serious event we have put in place an extraordinary review to ensure that we do everything . . . to identify as far as possible the source of this infection."

McGillivray said, "We're focusing on how the personal protection equipment is used, how it's put on, and how it's taken off." He added that it was unclear whether Cafferkey had contracted the virus in the treatment centre or outside, and he said that the source of the infection might never be known.

Data from the World Health Organization show a total of 20 381 confirmed cases of Ebola virus in the three worst affected countries—Sierra Leone, Guinea, and Liberia—including 7989 deaths so far. Sierra Leone has had the highest number of cases (9633), followed by Liberia (8018) and Guinea (2730). The western part of Sierra Leone is still experiencing the most intense transmission of the disease.

1 Gulland A. Second Ebola patient is treated in UK. *BMJ* 2014;349:g7861.

Cite this as: *BMJ* 2015;350:h36

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