Transplant infectious disease experts provide pandemic guidance

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Surgeons and other healthcare professionals specialising in solid organ transplants have been issued with expert advice to guide them through the complex clinical issues posed by the global H1N1 (swine flu) pandemic.

The paper, published online by the American Journal of Transplantation, also urges them to stay alert to the significant concerns that swine flu could combine with seasonal flu, and possibly even bird flu (H5N1), to develop into a strain with unpredictable virulence.

"The current virus pandemic can cause severe disease in transplant patients and could be transmitted from donors" explains assistant professor Dr Deepali Kumar, an expert in transplant-related infectious diseases from the University of Alberta, Canada. "This has major implications for donor selection and transplant management and care."

Dr Kumar has teamed up with infectious disease experts from across Canada and the USA to discuss the solid organ transplant guidance issued as part of the wider H1N1 guidelines produced by the American Society of Transplantation (AST) and The Transplantation Society (TTS), which are updated online as new information emerges.

The article, fast-tracked for online publication, has been produced on behalf of both societies and carries the additional endorsement of the Canadian Society of Transplantation.

It includes discussions about clinical presentation, diagnosis, therapy and prevention, specifically addressing areas such as chemoprophylaxis, immunization and donor-derived infection.

"Reaction to this novel respiratory virus in the transplant community has been swift, as clinicians have real concerns about the prevention, diagnosis and treatment of the flu virus as public health data mounts and the course of the pandemic evolves" says Dr Kumar.

"The International Society for Heart and Lung Transplantation has already developed guidelines for heart and lung transplant recipients in the pandemic setting, raising concerns about transmission from donors to recipients.

"However, autopsy studies suggest that other organs, such as the brain, kidney, pancreas, spleen, liver and heart, can also become infected. This pandemic has important clinical implications for all stages of the solid organ transplant process."

Key points raised by the discussion document include:

- All patients with influenza-like illnesses, and milder symptoms such as a persistent runny nose, should be tested for the virus and empiric antiviral therapy considered.
- Some experts recommend continuing antiviral therapy until viral replication has ceased and clinicians should base their therapy decisions on current advice from the Centers for Disease Control (CDC) and individual patient assessments.
- Some experts also recommend that the oseltamivir (Tamiflu) dose may be doubled in critically ill patients and a significant

reduction of immunosuppression is recommended in patients with significant disease.

- However it should be noted that a CDC study (August 2009) reported oseltamivir resistance in two immunocompromised patients.

- Transplant patients and donors should receive at least one dose of H1N1 vaccine. Recent studies show that in healthy adults a single dose of inactive split-virus 2009 H1N1 vaccine had a seroconversion (antibody production) rate of 96.7 per cent, while a single dose of a vaccine containing adjuvant MF59 achieved 76 per cent.

- People who receive a Live Attenuated Influenza Vaccine may shed the virus for up to 21 days after immunization.

- There is currently no data on the duration of antiviral therapy that donors with H1N1 must undergo before organs can be safely used. If the donor has not completed a course of treatment, the current recommendation is to give the recipient five to ten days of antiviral therapy, at therapeutic not prophylaxis doses.

"As new information emerges about novel H1N1, updates will be made to the electronic guidance document posted on the AST and TTS websites so regular visits are recommended" stresses Dr Kumar.

More information: The paper is available free online at: www3.interscience.wiley.com/cg … /123198716/HTMLSTART

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