Risk Assessment Group

CONSULTATIVE SIGNAL ASSESSMENT
PRIMARY RISK ASSESSMENT
EVIDENCE BASED RISK ASSESSMENT
PUBLIC HEALTH EVENT ASSESSMENT

SUSPICION OF CREUTZFELDT-JAKOB DISEASE

Date of the signal	Date of the PRA	Signal provider	Experts consultation	Method
22/06/2021	24/06/21	FAGG/AZG	**Permanent experts:** Dr Dirk Wildermeersch, Ms Hanna Masson (AZG), Dr Romain Mahieu (COCOM-GGC), Dr Paul Pardon (FOD), Ms Brigitte Bouton, Dr Christian Huvelle (AViQ), Dr Sophie Quoilin, Dr Valeska Laisnez, Dr Tinne Lernout (Sciensano). **Specific experts :/**	
Date of update	**Closing date**			

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Signal	A patient hospitalised in ICU on 8 June was intubated before a suspicion of Creutzfeldt Jakob disease diagnose was evocated on 18 June. The blade of the laryngoscope which went through a normal sterilisation cycle as at that time there was no suspicion CJD, entered the washing and sterilisation cycle together with other material from the hospital and medical equipment rental companies (Biomed, Striker, Medacta). This medical equipment was subsequently used in other hospitals.

Description	
Cause known?	Creutzfeldt-Jakob disease (CJD) is a degeneration of the central nervous system characterised by the accumulation of a prion. There are various forms: sporadic (the most frequent which remains from unknown origin), familial (genetic transmission), iatrogenic (mainly by dura mater graft, injection growth hormone from animal origin, …) and the variant induced by the consumption of contaminated beef – Bovine spongiform encephalopathy). The incubation period is years or even decades.
Unexpected/unusual	Unusual. There are about 10 to 20 diagnose a year of CJD.
Severity	The outcome is always fatal within approximately 6 months in sporadic form and 4 years in variant. There is no treatment, no risk of transmission in daily life. The risk of iatrogenic transmission by surgical intervention is mainly associated with the variant form.
Dissemination (Low/Medium/High)	Low: limited to patient exposed to the contaminated material if the diagnose is confirmed.
Risk of (inter)national spread	NA
Preparedness and response	
Preparedness	Disinfection for prions required specific methods as described by the CSS/HGR : https://www.health.belgium.be/sites/default/files/uploads/fields/fpshealth_theme_file/brochure_hgr_sterilisatie_web_06022020.pdf https://www.health.belgium.be/sites/default/files/uploads/fields/fpshealth_theme_file/aanbevelingen_ter_voorkoming_van_de_overdracht_van_de_overdraagbare_spongiforme_encefalopathieen_ziekte_van_creutzfeldt-jakob_in_verzorgingsinstelli_update_24012018.pdf
Specific control measures (surveillance, control, communication)	A lumbar puncture was performed on the patient and the samples were sent to Antwerp. Results should be available on Friday evening or next Monday. While waiting for the result, the following precautionary measures have already been taken Material having been in contact with the patient has been put in quarantine disinfected by prionicidal cycles. Operating theatre and consultations with invasive procedures stopped. Medical equipment companies that made surgical equipment available to the hospital between 8 and 18 June have been informed in order to consider this material as infected. The medical equipment companies have informed the other hospitals having used the same material. AFMPS/FAGG informed and regional public health agencies as well considering that the incriminated material has been used in several hospitals between the 8th and 18th June, in Wallonia and in Flanders.
Public health impact	
Public health impact in Belgium (Low/Medium/high)	Low

Recommendations (surveillance, control, communication)	If the diagnose of CJD would be confirmed: - RA of the precise risk - Decision on the information of exposed patients or maintain a conservative list of exposed patients considering very low risk to develop the illness, no risk to transmit the disease, very long incubation period, no treatment. - Materiel compatible with prionicidal cycles should be disinfected by this method. - Material not compatible with prioncidal cycles should be destroyed. - Notify it to Sciensano following procedure of surveillance system. If the diagnose is refuted: no further actions.
Actions	Ask the hospital to describe the disinfection method they used to disinfect the blade in order to better define the risk of contamination of the other equipment (does exist an incident report from hospital hygiene) if the diagnose should be confirmed)?. FAGG? : Check if rental companies have informed concerned hospitals, recall the material and put it in quarantine awaiting for confirmed diagnose or disinfected it by prioncidal cycles. Recommend to hospital to trace the equipment and retrieve it from use. Further actions will depend of the confirmation of the diagnose.

The hospital Saint Luc at Bouge did not have a traceability of the devices to determine which devices were in treated with the potentially contaminated laryngoscope or in the following cycle.
The FAMHP contacted the external providers of medical devices that St Luc identified by e-mail. These providers are: Arthrex, Hospitera - The Surgical Company (TSC), ZimmerBiomet, Medacta, Stryker and Sterima.

- Arthrex confirmed that the affected set is in quarantine and was not transferred to another client between their usage at St Luc and the signal.
- Stryker confirmed that the affected set(s) are in quarantine and were not transferred to another client between their usage at St Luc and the signal.
- Medacta confirmed that:
    - A set was transferred to a client after usage at St Luc. This client is informed and the set is now in quarantine at Medacta warehouse
    - A set was transferred to a client after usage at St Luc. This client usages an anti-prion treatment as standard practise of incoming sets. This set is considered not contaminated.
    - A group of sets are still at St Luc, where they will be undergoing anti-prion treatment by hospital & Sterima.
    - A group of sets are at distributors warehouse, waiting further instructions by Sterima on treatment.
- Hospitera - The Surgical Company (TSC) Confirmed that the affected sets are in quarantine. The affected sets will be according to TSC treated at St Luc. No information was provided on usage by other clients between St Luc and the signal. FAMHP has asked additional questions but so far no response received by the FAMHP.
- ZimmerBiomet confirmed that the affected sets are in quarantine. Information provided by AVIQ to FAMHP: 11 hospitals were contacted as these were further clients between St Luc and the signal.
- Sterima: Did not respond on e-mail. The FAMHP as called Sterima, apparently the e-mail was send to a person on holiday (without an OOF message). Sterima would try to provide an answer on the questions from FAMHP today but so far no answers have been provided. They are involved, according to one of the companies, with the treatment at St Luc and the treatment at a client as such they are well aware of the issue at hand. The FAMHP will update if answers by Sterima are provided.

Pour info, on a rediscuté du cas possible de CJD hier en RMG. Le matériel a été mis en quarantaine jusqu'aujourd'hui et il fallait décider si cela devait être prolongé ou pas (cela a bcq d'implications car grande quantité). Comme tu sais la PL a été négative, mais il n'y a pas d'autres hypothèse de la cause des symptômes. Et le protocole dit qu'en cas de doute clinique, il faut répéter la PL 4 semaines après. Donc ce serait dans 10 jours (si le patient survit aussi longtemps) + le temps du résultat. L'avis RAG a été demandé pour savoir s'il fallait donc prolonger la mise en quarantaine toute cette durée ou pas. J'ai dit que le RAG ne peut pas évaluer la probabilité de diagnostic, c'est au clinicien de déterminer cela et en fonction de sa décision il faut prolonger ou pas. Tu es d'accord ?
AVIQ allait en parler avec les cliniciens aujourd'hui.

04/07 : L'analyse du LCR montre des bandes oligoclonales ce qui plaide pour une atteinte immunitaire du SNC. Je pense que l'on peut donc oublier le spectre de le CJK. De plus l'IRM reste non suggestive.