

"Hepatitis E" does not exist: 2 entities. 1) Travellers/tropical hep E (HEV gt 1 and 2): Acute, sometimes severe hepatitis in returning travellers. Sometimes necessitating liver Tx in previously healthy adults. "Pregnant women: 20% †" 2) Zoonotic hep E (HEV gt 3 and 4): 1) Silent infection in you & me (incidence NL: 1% per year). Apparently innocent for you, me, babies, pregnant women, ... 2) Mild, acute hepatitis predom. among middle aged men. 3) Chronic hep E (cirrhosis!) after transplantation, chemo, etc.













HEV gt3: hidden sources of infection?

- Production of spray dried pig plasma protein is not save regarding HEV. (prof.v.d. Poel, EFSA, London, Feb 23rd 2016)

- Where do the large quantities of spray dried porcine plasma protein go: In human and/or in animal food?

- Idem porcine hemoglobulin?

In human medicine:

- pig gelatin impregnated hemostatic bandages?
- tissue glue (spray), produced from pooled human fibrin/thrombin?
- "May carry a risk of transmitting infectious agents, e.g. viruses, the variant Creutzfeldt-Jakob disease (vCJD) agent and theoretically, the Creutzfeldt-Jakob disease (CJD) agent"



Plasma powder has a positive effect on piglet health and feed intake. The colour of agglomerated (left) and non-agglomerated (right) plasma powder is not dark as many believe.













Infectious blood components:

- red blood cells (erythrocyte concentrate)
- platelets
- fresh frozen plasma

- SD-plasma when produced from non-screened units

- maybe: some specific antibody preparations

NB:

- modern pathogen reduction/removal techniques seem ineffective

Let's put the risk of blood-borne HEV in perspective:



Incidence = 1.07% / year based on seroconverting donors in 2009-2011 (Slot et al, 2014).

Duration and distribution of viremia taken from 41 HEV+ donors and 113 HEV+ donaties.









HEV Infectivity for various blood products			
Blood product	plasma content	Volume of plasma used for estimation	Probability of HEV transmission by HEV positive blood product
Red cell concentrates	5-10 ml	10 ml	19%
Pooled Thrombocyte concentrates in plasma	330 ml	330 ml	44%
Pooled Thrombocyte concentrates in PASII	30-40% of 330 ml	132 ml	37%
Apheresis platelets in plasma	150-400 ml	400 ml	46%
Apheresis platelets in PASII	30-40% of 150-400 ml	160 ml	38%
Quarantine plasma	310 ml	310 ml	44%
Omninlaama	200 ml	200 ml	0.0/







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