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Community-acquired Group B streptococcal meningitis in adults --Manuscript Draft--

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Dear Editor

We were somewhat surprised that the recent review of community-acquired Group B streptococcal meningitis in adults by van Kassel et al. 1 contained no reference to recent work implicating foodborne transmission, particularly from raw or undercooked fish, as an important mode of acquisition of this condition in some parts of the world. The first evidence for this came from a large outbreak of invasive Group B streptococcal (GBS) infection, primarily bacteraemia, septic arthritis and meningitis, in Singapore in 2015. Both epidemiological and molecular evidence suggested that these infections, caused by GBS of serotype III, subtype 4 (serotype III-4), multilocus sequence type (MLST) 283 (ST283), were associated with the consumption of raw, farmed freshwater fish.^{3,4} GBS are well-known primary pathogens in fish.⁵ More recently it has been shown that this lineage is actually widespread amongst both human isolates of GBS in SE Asia and fish isolates both from Asia and Brazil. GBS is now a not uncommon cause of meningitis in adults in countries such as the Lao People's Democratic Republic⁶; in addition, earlier reports had already noted an increase in the incidence of adult GBS meningitis in both Hong Kong and Singapore, including many cases subsequently confirmed as being caused by ST283.^{7,8} It thus appears possible that an extensive but previously unrecognised outbreak of invasive GBS disease associated with the consumption of raw or undercooked farmed fish, a common practice in some regions, may have been going on for several decades.8

We feel that the failure to mention these observations, which include 60 cases of adult meningitis and could fundamentally change the way in which we view the epidemiology of adult GBS disease, was an unfortunate omission in a review of adult community-acquired GBS meningitis.

Yours sincerely

DAB Dance, RN Zadoks, M. Luangraj, A Simpson, SL Chen, T Barkham

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