A protracted outbreak of Salmonella Hessarek infection associated with one brand of eggs - South Australia, March 2017-June 2018

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Salmonella Hessarek infections are rare; a global literature review identified only one publication relating to S. Hessarek in humans plus some on detection of this serovar in wild animals. In Australia, for the period 2015-2017, notifications of S. Hessarek increased to 30 per year, from a previous five year average of 12 notifications (2010-2014). The majority of notifications were in South Australia (SA). A prospective case series study to determine any common source of infection in SA was conducted between 1 March 2017 and 30 June 2018. All 24 cases (14 males, ten females, median age: 48 years, age range 1-91 years) notified with S. Hessarek infection in this period were interviewed; 23 cases reported consuming eggs with 16 naming brand X eggs. Four dozen brand X eggs were sampled; Salmonella was not cultured from the egg-shell rinse of any egg samples, however, S. Hessarek was cultured in the content of one egg sample. The epidemiological and laboratory evidence strongly support brand X eggs as a protracted source of S. Hessarek infection in SA. S. Hessarek was also cultured from the content of eggs in SA in 2014. To determine whether cases of S. Hessarek notified prior to March 2017 are associated with brand X eggs, whole genome sequencing (WGS) of S. Hessarek isolates since 2014 is being considered; currently, no S. Hessarek reference strain, required for WGS, is available globally. Further research to understand this emerging Salmonella serovar in SA and inform efforts to control Salmonella associated with eggs is occurring.

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