

Can some childhood mental health disorders be prevented?



Long-term risk of psychiatric disorders following neonatal, invasive Group-B *Streptococcus* disease.

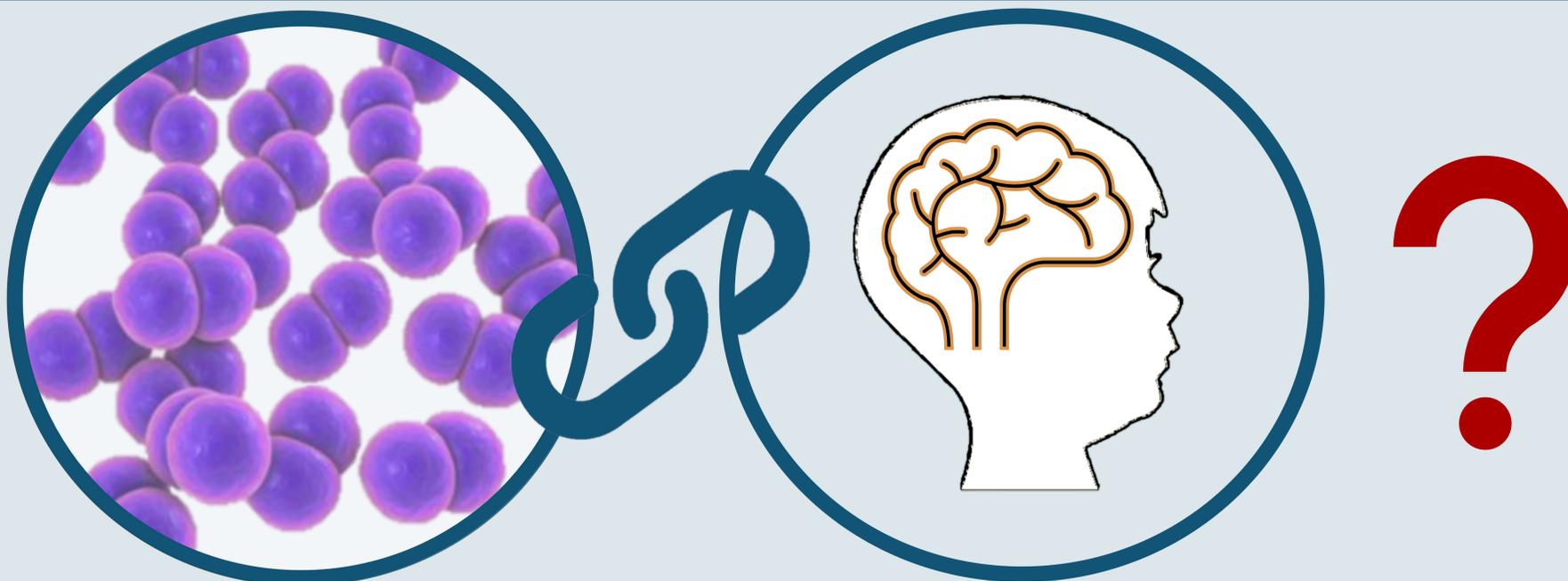
A population-based cohort study from Denmark.

Malene R. Lykke¹, Henrik T. Sørensen¹, Joy E. Lawn², and Erzsébet Horváth-Puhó¹

1) Department of Clinical Epidemiology, Department of Clinical Medicine, Aarhus University Hospital, Aarhus University, Aarhus, Denmark. www.kea.au.dk
2) Maternal, Adolescent, Reproductive & Child Health (MARCH) Centre, London School of Hygiene & Tropical Medicine, London, United Kingdom.

Contact: mrl@clin.au.dk
Twitter: MaleneLykke3

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1 Why this study?

- Invasive group B Streptococcus (**iGBS**) disease remains a leading cause of neonatal and young infant mortality worldwide.
- Infections can cause stillbirth, neonatal death and neurodevelopmental impairment.
- A knowledge gap exists concerning long-term outcomes following iGBS.
- **What is the risk of psychiatric disorders?**

2 What we did:

- A national **population-based matched cohort** study (10:1), 1997-2018, Denmark, using Danish National Healthcare data.
- **Exposure:** iGBS (0-89 days after birth). **Outcome:** Psychiatric disorders (ICD-10 codes).
- Cumulative risk was calculated treating death as a competing event.
- Hazard ratio (HR) was calculated with Cox proportional hazards regression including 95% confidence intervals (CIs).

3 Results:

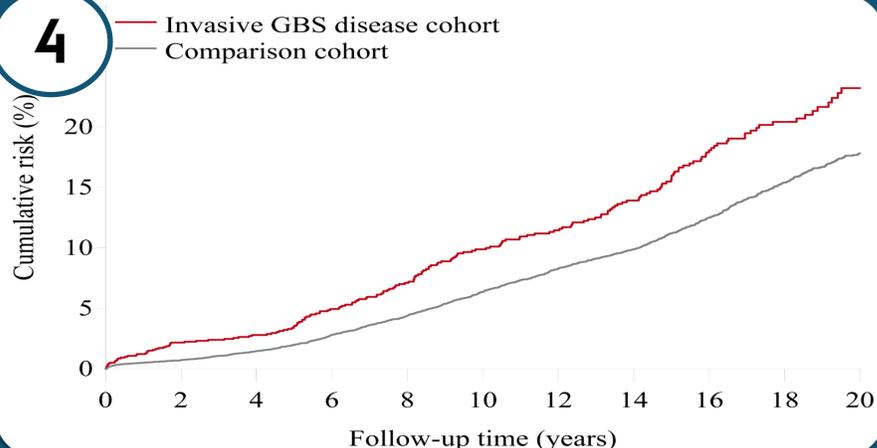
- 1432 children with iGBS: 1264 with sepsis and 168 with meningitis.

Cumulative risk for any mental disorder:

- iGBS total: 22.6% (95% CI 19.4–25.9%)
- iGBS meningitis 24.6% (95% CI 16.1–34%)
- iGBS sepsis 22.2% (95% CI 18.8–25.8%)

Psychiatric disorder	Adjusted HR (95% CI)
Any psychiatric disorder	1.42 (1.22–1.66)
Neurotic disorders	1.74 (1.34–2.26)
Mental developmental disorders	1.32 (1.02–1.71)
Emotional disturbances	1.48 (1.19–1.83)

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Take home message:

iGBS was associated with an increased incidence of any psychiatric disorder in later childhood.



Future events can be prevented with a vaccine!