**SIDS**

**Oral**

**No 227**

**Primary Prevention of Fetal Death and Congenital Infection Caused by Maternal Infection Using a Checklist-enabled Acronym Prompt “LESS BABY TORCHES”**

JA McGregor1, J Christian2, JI French3, M Perhach4, J Jones4

1University of Colorado Denver; 2PCC Health; 3LA Best Babies Network; 4Group B Strep International

**Background:** Maternal (vertical) infections causing fetal death (FD) (including stillbirth [SB]) or congenital infection (CI) are microbiologically and geographically diverse, often medically “neglected,” considered “orphans” or “emerging,” and are not systematically reported. These features make primary prevention preferable to “screen and treat” secondary prevention strategies. Use of checklists (CLs), which can guide medical providers and inform susceptible patients or “at risk” populations, are industrially recognized as effective tools to organize approaches to complex tasks such as pregnancy care.

**Objectives:** Using established microbiologic, epidemiologic, and systems-based pregnancy care knowledge, we collaboratively modified a widely-known medical-teaching mnemonic “TORCHES” for 1) recognizing/remembering important and preventable “textbook” causes of vertical infections which may lead to FD including SB, or CI, and 2) enabling a teaching device for both pregnancy providers and patients to enable locally practicable evidence-based, behavioral prevention strategies.

**Material and Methods:** We employed a systematic literature review and responded to parent enquiries via crowdsourcing.

**Results:** We propose “LESS BABY TORCHES” as follows to enable, inform, and guide primary behavioral prevention of FD or CIs:

|  |  |  |
| --- | --- | --- |
|  | **Agents** | **Behaviors** |
| **L** | ***L****isteria*  **L**eishmaniasis | Food preparation  Bite avoidance |
| **E** | **E**nteroviruses | Hygiene, food preparation |
| **S** | **S**yphilis | Avoid new sex contacts, use condoms |
| **S** | **S**easonal influenza  West Nile Virus (WNV) | Immunization  Avoid bites |
|  |  |  |
| **B** | Group **B** *streptococcus* (GBS) | Assume CDC/ACOG recommendations |
| **A** | **A**symptomatic bacteriuria (ASB) | ASB/Urinary tract infection (UTI) screening |
| **B** | ***B****orrelia* species | Lyme disease (tick) precautions |
| **Y** | **B**arnyard leptospirosis | Hygiene |
|  |  |  |
| **T** | ***T****oxoplasma gondii*  **T**uberculosis | Food preparation  Vaccination |
| **O** | **O**thers, e.g., varicella-zoster virus | Vaccination, etc. |
| **R** | **R**ubella, measles, pertussis | Vaccination |
| **C** | **C**ytomegalovirus (CMV) | CMV precautions, handwashing |
| **H** | **H**erpes simplex 1 and 2 viruses  (HSV-1, HSV-2)  **H**epatitis A and E viruses (HAV, HEV) | Behavior  Hepatitis precautions, vaccination |
| **E** | **E**merging infections |  |
| **S** | **S**exually transmitted infections (STIs) | Avoid new sex contacts, use condoms |

**Conclusions:**

1) We derived an expanded behavior-oriented checklist that may be individualized on the basis of location, season, environment, lifestyle, food style, and personal factor (immunization status) evidence-based prevention strategies.

2) Individually generated checklists can enable behavior change and generate patient problem lists for providers, payors, and policy makers.

3) Generated checklists may be incorporated into electronic medical records (EMRs) and be adapted to become quality performance standards (HEDIS, USPHS, WHO) which may also lessen morbidity costs and liabilities.

Contact: Marti Perhach <marti.perhach@gbs-intl.org>