Request for Proposals: To update a systematic review and meta-analysis of the safety, effectiveness and efficacy of Rotavirus vaccines

BACKGROUND

Rotavirus infection results in more diarrhea-related deaths in children less than five years of age than any other single agent in countries with high childhood mortality. It is also a common cause of diarrhea-related hospital admissions in countries with low childhood mortality. WHO recommends that rotavirus vaccines should be included in all national immunization programs. By 2018, rotavirus vaccines had been introduced in 102 countries. A Cochrane systematic review of 41 RCTs including more than 180,000 participants found Rotarix and RotaTeq vaccines to be effective and did not detect any increased risk of any serious adverse events. Post-licensure surveillance studies in Australia, Brazil and Mexico included in the systematic review found a small increased risk of intussusception after the first dose for both vaccines. The systematic review concluded that even if these findings are confirmed, the benefits from hospitalizations and deaths prevented by vaccination greatly exceed these risks. In 2012 SAGE recommended the removal of the age restriction of the first and last dose of rotavirus vaccines.

At this time, there are more vaccine effectiveness data available for Rotarix and RotaTeq in high, middle, and low income countries as well as more data on rotavirus vaccine safety, including data related to intussusception risk. Furthermore, efficacy and safety data on recently licensed rotavirus vaccines have become available.

As data from early introducing developing countries and on new rotavirus vaccines become available, there is a need to update the evidence on the safety, efficacy and effectiveness of rotavirus vaccines. For immunization programs, data of interest include any such data on schedules and co-administration, especially co-administration with oral polio vaccine, interchangeability of rotavirus vaccines and mixed schedules, as well as data on efficacy and safety in HIV-infected individuals.

PURPOSE OF THE CONTRACT

To update a systematic review and meta-analysis of the safety, effectiveness and efficacy of childhood schedules using Rotavirus vaccines.

SPECIFIC REQUIREMENTS

Eligibility

- Extensive experience, more than 15 years of the principal investigator in conducting systematic reviews and disseminating similar syntheses.
- Expertise in statistical analysis of systematic reviews.
- Adequate methodological rigor of the proposed approach including feasibility of timelines
- Adequacy of mechanisms for addressing any intellectual and financial conflicts of interest.
• Content expertise on the team in immunization and vaccines is desirable although not essential.

Skills and knowledge
• Capacity to interact with technical experts in public health organisations, governments, academia, and industry, with respect to vaccination
• Excellent oral and written communication skills in English.
• Knowledge and solid analytical skills in epidemiology of infectious diseases,

Deliverables
A Final Report will be due upon an agreed date, ideally within 7 months after the project commencement date. The final product will be a systematic review Report including the following elements:

• Protocol
• Executive summary, including objectives and main findings
• Research question(s) and study objectives.
• PRISMA flowchart, full search strategy, reference list and list of included/excluded studies
• Data analysis (critical assessment), including statistical pooling or meta-analysis of data, if applicable.
• Tables including GRADEing of the evidence for previously agreed critical outcomes.
• Main results and/or main conclusions of the statistical analysis in answering the initial research question(s).

DATES
The project will start by 31 January 2020 and end by 30 September 2020. The supplier will not be expected to work at any given location, but to travel up to two times to WHO Headquarters in Geneva for technical meetings.

HOW TO APPLY
Please submit applications by e-mail to sageexecsec@who.int with “To update a systematic review and meta-analysis of the safety, effectiveness and efficacy of childhood schedules using Rotavirus vaccines” in the subject line.

Please include:
• a letter of motivation and
• a current curriculum vitae.

All applications will be acknowledged.

The closing date for applications is 15 January 2020.