

Review Group Membership

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Disclaimer:

Technology review is a brief report, prepared on an urgent basis, which draws on restricted reviews from analysis of pertinent literature, on expert opinion and / or regulatory status where appropriate. It is subjected to an external review process. While effort has been made to do so, this document may not fully reflect all scientific research available. Additionally, other relevant scientific findings may have been reported since completion of this review.

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2010

Introduction

Acetaminophen is very widely used as an antipyretic as well as analgesics because of its high efficacy and good safety profile. It is used to relieve mild to moderate pain from headaches, muscle aches, menstrual periods, colds and sore throats, toothaches, backaches, and reactions to vaccinations, and to reduce fever.¹

Acetaminophen is considered as safer antipyretic for children compared to other drugs. After receiving immunizations, fever is part of the body's normal inflammatory process. In many cases, acetaminophen is administered to relieve possible risk of high fever or febrile convulsions in children after routine infant vaccinations.

The technology review was requested by a Family Medicine Specialist from Klinik Kesihatan Bandar Alor Setar, following a finding from a new study which showed that the use of acetaminophen after vaccination may reduce the immunogenicity of the vaccine.

Objective/Aim

The objective of this technology review was to assess the safety, efficacy or effectiveness and cost-effectiveness of routine used of acetaminophen following childhood immunization

Results and Conclusions

There was only one good level of evidence to show that routine prophylactic use of acetaminophen after vaccination was effective to reduce fever. However, this trial also showed that the routine prophylactic use of acetaminophen may reduce the antibody response. No study was retrieved on the cost-effectiveness.

Methods

Electronic databases were searched, included PubMed, Ovid Medline (R) from 1990-2006 (EBM Reviews – Cochrane Databases of Systematic Reviews), National Horizon Scanning, INAHTA and FDA, NIOSH website, for published reports. There was no limit in the search. Additional articles were identified from reviewing the bibliographies of retrieved articles.