INAHTA Briefs

Issue 2008/061

Title **PhaSeal System for Chemopreparation**

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Reference Health Technology Assessment Report, MOH/P/PAK162.08 (TR), 2007.
www.moh.gov.my/MohPortal/htaDetail.jsp?action=view&id=50

Aim

To determine the safety, effectiveness, and cost effectiveness of the PhaSeal system for chemotherapy preparation.

Conclusions and results

The PhaSeal system is safe and effective in reducing contamination when used in preparing and administering cytotoxic drugs. There is, however, the issue of incompatibility of the PhaSeal system with several cytotoxic drugs, particularly products in ampoules and drug vials of certain sizes. Training of personnel involved in chemotherapy preparation, administration, and waste disposal is important to ensure the correct technique of using the device.

Available evidence indicates that the PhaSeal system creates an additional yearly expense to the cost of every chemotherapy infusion. Nevertheless, cost can also be reduced due to fewer personal protective measures and no requirements for the biological safety cabinet or a clean room facility with ventilation system.

Recommendations

Given the local situation, where many Malaysian government hospitals still prepare chemotherapy without the presence of biological safety cabinets (BSCs) or clean rooms, the use of the PhaSeal system can be considered until these hospitals are equipped with clean rooms or BSCs (personal communication with representatives from the Pharmaceutical Services Division, Ministry of Health, and Radiotherapy and Oncology Pharmacy unit). However, the issue of incompatibility of PhaSeal with certain drug vials or ampoules limits its application. When a decision to use the PhaSeal system is made, emphasis should be given to the training of personnel involved in the preparation, administration, and waste disposal of cytotoxic drugs. This is to ensure correct use of the device, to minimize the leakage of cytotoxic drugs.

Methods

A protocol was developed. Literature published from 2000 to 2007 was systematically searched through electronic databases, eg, PubMed, Ovid, Cochrane Library, and CINAHL. Guidelines and Health Technology Assessment databases were also searched. The articles were assessed and graded according to the Catalonian Agency for Health Technology Assessment Level of Evidence.

Further research/reviews required

Additional research is needed to determine the setting in which the PhaSeal system is to be used.

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ISSN 1654-501X