



**TITLE: Intravenous Tubing for Paclitaxel, Docetaxel, and Etoposide for Adult Patients in an Ambulatory Care Oncology Setting: Clinical Evidence and Guidelines**

**DATE:** 09 July 2010

**RESEARCH QUESTIONS:**

1. What are the guidelines for use of trimellitate, non-diethylhexylphthalate, or alternative types of intravenous tubing for paclitaxel, docetaxel, and etoposide for adult patients in an ambulatory care oncology setting?
2. What is the clinical evidence that trimellitate tubing is a viable alternative to other non-diethylhexylphthalate tubing for the administration of paclitaxel, docetaxel, and etoposide?

**METHODS:**

A limited literature search was conducted on key health technology assessment resources, including PubMed, OVID EMBASE, the Cochrane Library (Issue 6, 2010), University of York Centre for Reviews and Dissemination (CRD) databases, ECRI (Health Devices Gold), EuroScan, international health technology agencies, and a focused Internet search. The search was limited to English language articles published between January 1, 2000 and July 6, 2010. No filters were applied to limit the retrieval by study type. Internet links were provided, where available.

**RESULTS:**

HTIS reports are organized so that the higher quality evidence is presented first. Therefore, health technology assessment reports, systematic reviews, and meta-analyses are presented first. These are followed by randomized controlled trials, non-randomized studies, and evidence-based guidelines.

No relevant health technology assessments, systematic reviews, meta-analyses, randomized controlled trials, or non-randomized studies were identified regarding the clinical evidence that trimellitate tubing is a viable alternative to other non-diethylhexylphthalate tubing for the

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administration of paclitaxel, docetaxel, and etoposide. No evidence-based guidelines were identified regarding use of trimellitate, non-diethylhexylphthalate, or alternative types of intravenous tubing for paclitaxel, docetaxel, and etoposide for adult patients in an ambulatory care oncology setting. Additional articles of potential interest can be found in the appendix.

**OVERALL SUMMARY OF FINDINGS:**

No relevant articles were identified, therefore, no summary pertaining to the use of trimellitate, non-diethylhexylphthalate, or alternative types of intravenous tubing for paclitaxel, docetaxel, and etoposide for adult patients in an ambulatory care oncology setting can be presented.

**REFERENCES SUMMARIZED:**

**Health technology assessments**

No literature identified

**Systematic reviews and meta-analyses**

No literature identified

**Randomized controlled trials**

No literature identified

**Non-randomized studies**

No literature identified

**Guidelines and recommendations**

No literature identified

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**APPENDIX – FURTHER INFORMATION:**

**Laboratory studies**

1. Ito R, Miura N, Iguchi H, Nakamura H, Ushiro M, Wakui N, et al. Determination of tris(2-ethylhexyl)trimellitate released from PVC tube by LC-MS/MS. *Int J Pharm.* 2008 Aug 6;360(1-2):91-5. [PubMed: PM18502595](#)
2. Xu QA, Trissel LA, Gilbert DL. Paclitaxel compatibility with a TOTM-plasticized PVC administration set. *Hosp Pharm.* 1997;32(12):1635-8.  
*Note: this study was published outside of the 10 year range of the literature search*

**Additional references**

3. DEHP-free: important for you and your patients. Atrium Clinical Update [Internet]. 2010 Mar [cited 2010 Jul 6]. Available from: [http://www.atriummed.com/EN/chest\\_drainage/Clinical%20Updates/ClinicalUpdateMar10.pdf](http://www.atriummed.com/EN/chest_drainage/Clinical%20Updates/ClinicalUpdateMar10.pdf)
4. Antineoplastic compatibility studies for ChemoCLAVE™ system [Internet]. San Clemente (CA): ICU Medical; c 2007 [cited 2010 Jul 6]. Available from: [http://www.icumed.com/Docs-Oncology/M1-1185\\_Antineoplastic\\_Compatibility\\_Rev02.pdf](http://www.icumed.com/Docs-Oncology/M1-1185_Antineoplastic_Compatibility_Rev02.pdf)
5. Astier, A. Compatibility with anticancer drug solutions with administering devices. *EJHP Practice* [Internet]. 2005 May [cited 2010 Jul 6];14:55-56. Available from: [www.eahp.eu/content/download/27522/178974/file/Update55-56.pdf](http://www.eahp.eu/content/download/27522/178974/file/Update55-56.pdf)