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A Review Comparing the Most Beneficial Regimens of Cleansing an Umbilical Cord before Detachment

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PATIENT CARE ISSUE

This review was conducted because an umbilical cord infection is one of the leading causes of death in neonates.

“Newborn cord care practices may directly contribute to infections, which account for a large proportion of the four million annual global neonatal deaths^(Alam).”

Previous studies have shown that there are multiple different ways to care for an umbilical cord stub before detachment.

Chemical and natural regimens have been proven to be significant in decreasing omphalitis in neonates.

One of the most susceptible areas to bacterial colonization for a neonate is the umbilicus.

EVIDENCE-BASED PRACTICE QUESTION

Question: What is the most beneficial way to cleanse a neonatal umbilical cord before detachment?

P – mothers with an infant

I – methods of umbilical cord care

C – natural and chemical methods of cleansing

O – best evidence-based method to reduce health risks, separation time, infection rates, and cost of care ^(Burns & Grove)

REGISTERED NURSE INTERVIEW

Who: Cheryl RN, BSN

When: September 24, 2012

Where: Labor & Delivery unit at Kettering Hospital in Ohio

Policy: No policy exists determining the proper method to cleanse the umbilical cord stub.

Practice: Use of sterile alcohol swabs when cleansing the umbilical cord base and educate mothers to use water or alcohol at home.

METHODS

Databases:

CINAHL, MEDLINE, PUBMED.

Keywords:

Alcohol drying, natural drying, cord care, umbilical cord separation, neonate, infection, nursing care, skin care, cleansing methods

Selection Criteria*:

Full text articles

Published in past five years

Methods to cleanse umbilical cord stub

Concerning infection, separation time, and cost

*Eight articles selected for review

RESULTS

Databases

- ❖ **MEDLINE:** One article – LOE 2
- ❖ **CINAHL:** Four articles – LOE 2-3
- ❖ **PUBMED:** Three articles – LOE 2, 4

SYNTHESIS OF EVIDENCE

Studies compare two sets of cord care

- ❖ **Five supported NATURAL methods**
- ❖ **Three supported CHEMICAL methods**

Findings:

- ❖ **Dry cord shorter UCST* then isopropyl alcohol** ^(Hsu et al.)
- ❖ **Dry cord and human milk are most cost effective**
- ❖ **Human milk had shorter UCST then alcohol or dry cord care** ^(Aghamohammadi et al.)

*Umbilical Cord Separation Time (UCST)

EVIDENCE-BASED PRACTICE RECOMMENDATIONS

- ❖ **Education** ^(Darmstadt et al.)
- ❖ **Promotion of hygiene** ^(Hsu et al.)
- ❖ **More evidence collection** ^(Erenel et al.)
- ❖ **Use of human milk and dry cord care** ^(Aghamohammadi et al.; Hsu et al.)

LIMITATIONS

- ❖ **Extraneous factors exist**
- ❖ **Narrow sample population in studies**
- ❖ **More articles were located supporting natural methods**
- ❖ **Inability to measure the cost effectiveness of different regimens**
- ❖ **Unable to obtain as much data from westernized healthcare units**

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