A bed bath does not need to involve water

The single-use product consists of a sealable bag with a washcloth, containing skin-friendly cleaning agents, which do not require rinsing. Only one bag is used per patient/user to avoid cross-contamination. The bag can be heated in a microwave oven or in warm water. After use, the cloth is disposed of.

This article is intended for all nurses and student nurses. The main theme is that a bed bath does not necessarily involve bowls, soap and water, but can be performed using a single-use cloth impregnated with a cleaning cream. However, the patient perspective here is very neglected. The article is based on a literature review and practice at Køge Hospital, Denmark.

To help patients with personal hygiene is one of the basic nursing tasks, included in Virginia Henderson's introduction to nursing. Under the 3rd component of the 14 basics for nursing, she states that nurses "must help the patient to remove the body's waste products" and in component 8, the task is to "help the patient to keep the body clean and cared for, and protect the skin and mucous membranes" (1).

Apart from the natural science angle of helping the patient remove waste products, nursing also includes care for patients who need help with their personal hygiene. Nursing researcher Jocelyn Lawler and others have studied bodily phenomena in nursing, and highlighted the importance of the nurse also preserving the patient's modesty and minimising embarrassment (2). Finally, the situation in which the nurse helps the patient with personal hygiene is a unique opportunity to observe the patient's skin, colour, temperature, muscle function, level of consciousness etc. (3).

"When a seriously ill or helpless patient needs help with personal hygiene, it is often in the form of a traditional bed bath."

More options for remedies

When a seriously ill or helpless patient needs help with personal hygiene, it is often in the form of a traditional bed bath, using a wash bowl, cloth, towels etc, which is also the method referred to in Danish nursing literature (3,4). However, there are also single-use products intended for bed baths. The product consists of a package containing a skin-cleaning cloth, which can be heated before use in a microwave oven and disposed of after use.

The single-use bed bath was developed by American nurse Susan Skewes in the mid-90s (5). She observed that patients suffered scratches on their skin and that their need for oxygen increased when they were given a traditional bed bath, and in consultation with chemists and technicians, she therefore developed a package concept consisting of a single-use cloth, making the use of water, bowl and towels superfluous. (5).

30 single-use sets per day

The six medical departments at Danish hospital Køge Sygehus Region Sjælland use traditional bed baths and single-use cloths for bed baths extensively, often with a bad conscience with regard to the latter. A pilot study run over a random week in all six departments in 2008 showed that a total of 83 patients (15%) out of 549 needed full help with their personal hygiene in the form of a bed bath. See table 1, page 55 for the personnel groups giving bed baths.
On an annual basis, a medical department (106 beds) uses 11,058 single-use cloths, equivalent to 30 sets per day. This corresponds to an annual cost of approx. DKK 160,000

We therefore became interested in studying the pros and cons of a traditional bed bath compared to one using single-use cloths, and performed a literature study in the PubMed and Cinahl databases. The search word "bath" produced 726 hits in Cinahl and 2,836 in PubMed. An extended search on "bed bath" gave 40 hits in Cinahl and 280 in PubMed, and extending the search still further to "bag bath" gave 6 hits in Cinahl and 2 in PubMed. After reading the abstracts and résumés, we chose two relevant articles.

Table 1 BED BATHS IN A RANDOM WEEK IN 2008

<table>
<thead>
<tr>
<th>Title</th>
<th>Quant.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nurse</td>
<td>30</td>
</tr>
<tr>
<td>Social- and health assistant</td>
<td>40</td>
</tr>
<tr>
<td>Auxiliary nurse</td>
<td>11</td>
</tr>
<tr>
<td>Student nurse</td>
<td>7</td>
</tr>
<tr>
<td>Student social- and health assistant</td>
<td>7</td>
</tr>
<tr>
<td>Other personnel or family of the patient</td>
<td>0</td>
</tr>
</tbody>
</table>

Results from the literature

Skewe's own studies showed that the quantity of microorganisms on the skin was minimised and spreading of infectious germs was prevented, by exclusive use of single-use cloths (5).

In another study of 47 bedridden patients at three different intensive care departments performed by nurse Elaine Larson Ph.d, in which a traditional bed bath was compared to one using a single-use cloth, the conclusion was that
intensive care patients unable to take care of their own personal hygiene should be offered bed baths using single-use cloths (see table 2, page 56).

The study was performed according to international standards, including stringent systematisation using enough patients to extrapolate statistic analyses. The evidence level for the study by Elaine Larson is IIb, and the conclusion was drawn in relation to four focus areas (6): Time and quality, hygiene, economy and nurse satisfaction with the two methods.

**Time and quality**
Timing including the actual procedure with the patient without preparation time, and showed a difference between the two bathing types in favour of the single-use cloth. The shorter time meant less stress for the critically ill patients, and thus less need for oxygen, which is interpreted as better quality.

**Microbiological counts on the skin**
Before and after each bed bath, a swab was taken of the patient’s navel (dry swab) and groin (wet/damp swab). The results showed no significant difference in the number of microorganisms between the two types of bed bath. On the other hand, the number of microorganisms in the bath water rose rapidly during the course of the bath, depending on how frequently the water was changed.

**Economy**
The study included the costs of nursing time and consumption of the various products, but not such costs as cleaning the bowls and preparation time. The result showed that use of single-use cloths was cheapest, at DKK 120. ($19.87) for a traditional bed bath and DKK 108 ($18.15) for a single-use cloth. A difference of DKK 12, equal to 10%. The price of hot water was not included here, which would give a greater cost level for the traditional bed bath.

### Table 2. STUDY OF 47 BEDRIDDEN PATIENTS IN AN INTENSIVE CARE DEPARTMENT

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Design/method</td>
<td>Randomised, controlled study. Consecutive inclusion. 40 patients in surgical, medical and thorax-surgical intensive care departments received two different types of bed bath on two consecutive days.</td>
</tr>
<tr>
<td>Instruments</td>
<td>Observations, Questionnaires, Microbiological studies.</td>
</tr>
<tr>
<td>Study total/data source</td>
<td>47 patients. 7 dropouts due to death or discharge. Bed baths were observed and quality-assessed, timing was performed. Microbiological samples taken before and after bed bath.</td>
</tr>
<tr>
<td>Nurse activities/actions</td>
<td>Two bed baths were performed on two consecutive days. 1st day, traditional bed bath. 2nd day, single-use cloth bed bath. Samples were taken from the groin and navel before and after the bed bath. Nurse interviews for assessment of the two types of bed bath.</td>
</tr>
</tbody>
</table>
There were no significant differences in the quality score or microbiological count between the two types of bed bath. There was significantly less product use (P < 0.01), less time spent, fewer costs and higher nurse satisfaction with the single-use cloth bed bath.

The single-use bed bath is preferable for patients who are unable to perform personal hygiene themselves in intensive care wards. The single-use bed bath ought to be used instead of the traditional bed bath.

“The single-use cloth was deemed to be easier to use, saved time and was perceived to be more comfortable for patients.”

Nurse satisfaction

The single-use cloth was deemed to be easier to use, saved time and was perceived to be more comfortable for patients, they required fewer remedies and helped to clean and moisturise the patient's skin effectively. 77.5% of the nurses surveyed preferred to use the single-use cloth to a traditional bed bath.

A lack of patient perspective

The literature can only give limited new knowledge on the differences and similarities between a traditional bed bath and one using a single-use cloth, but the two studies indicate that a bed bath can be performed adequately using single-use cloths impregnated with a cleaning agent cream.

However, a major limitation to Larson's study is that the patient perspective is missing, which gives cause to further curiosity in relation to how the patient perceives a bed bath as a phenomenon.

It will therefore be relevant to study whether the positive results concerning less damage to the skin, time-saving, economy, minimisation of the spread of infection and nurse satisfaction can be reproduced amongst ordinary patients. The ideal will be the development of a clinical guideline for the matter.

The good bed bath

Further study is therefore needed as to which criteria need to be applied for a 'good' bed bath for conscious patients, and since the economic angle has not been investigated in general clinical use, this will probably be an important factor.

The medical department at Køge Hospital has decided to perform a clinically-controlled study over the next six months, which will look at the differences and similarities between a traditional bed bath and one using a single-use cloth. The patient's perception of the bed bath and the economics will be included as important parameters. The results of the studies are expected to be published in the late summer of 2010.

Lis Horstmann Nøddeskou is employed as leading senior nurse at the Medical Section, Køge Sygehus Region Sjælland; lhn@regionsjaelland.dk
Britta Hørdam is employed as Project Leader at University College Sjælland; bho@ucsj.dk

“The two studies indicate that a bed bath can be performed adequately using single-use cloths impregnated with a cleaning agent cream.”

Literature


5. Skewes SM. No more bed baths! bag bath ... a technique that lessens the risk of skin impairment. RN 1994;57(1):34-5.


"The two studies indicate that a bed bath can be performed adequately using single-use cloths impregnated with a cleaning agent cream."

---

**English abstract:**


Assisting patients with personal hygiene is a fundamental nursing role, often taking the form of a traditional bed bath using a wash bowl, towels, wet wipes etc. However, single-use products for bed-bathing are available and consist of a pack of skin-cleansing towels that are warmed in the microwave, and disposed of after use. A literature search has been performed to establish which is the best option. This showed relatively few studies, but did identify one level IIb comparative study supporting use of single-use wipes for bed-bathing unconscious intensive care patients in order to meet their hygiene needs, instead of traditional remedies. The study’s conclusion is based on time consumption, nurse satisfaction with the method, bacterial cultivation and cost.

A significant limitation of the study is the lack of a patient perspective; therefore it would be useful to study whether the positive results can be repeated in patients who are less unwell and more alert.

Key words: Bed bath, single-use products for bed-bathing, basic nursing.