Development of Protocol of Urinary Catheter Bundle Care in Hospitalized Elderly Using Modified Delphi Method

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Background:
Studies showed 73% of catheterized inpatients were elderly, of which up to 43.9-54% were improperly used. The improper use of indwelling catheters increased the length of hospital stay and the mortality rate. Carefully monitor the use of urinary catheter is important to prevent the iatrogenic damage caused by the inappropriate use of urinary catheter. Unfortunately there was no clinical protocol related the urinary catheter bundle care especially for the elderly patients.

Purpose:
The aim of this study is to establish clinical consensus for the protocol of urinary catheter bundle care in hospitalized elderly patient by using the modified Delphi method.

Methods:
A modified Delphi technique was used to gain consensus among multidisciplinary panel of 9 experts consisting of emergency physician and nurse, geriatricians and case manager, urologist, internist and head nurse. Two sequential rounds of anonymous questionnaires to refine a standardized protocol of urinary catheter bundle care in hospitalized elderly patients. A draft protocol of potentially relevant items was developed based on the results of systematic reviews. The items include "indwelling catheter medical indications", "urinary retention risk factors" and "remove indwelling catheter related strategies "a total of 30 items. In round 1, the experts were asked to rate the importance and agreement level of each draft item and provide additional suggestions for revisions or new items. The items without consensus and the suggestions for altered or new items were taken to round 2 together to get final consensus.

Results:
In round 1, 29 items met consensus. The item "If there is no need to assess the residual urine by the bladder scanner or intermittent straight catheters by the opinion of physicians that will be considered as successful removal," only reached 60% consensus that has revised as "After removal of Indwelling catheter, bladder scanner or intermittent straight catheters, urine output < 100c and the amount of voluntarily void and residual urine> 2: 1 will be considered as successful removal." The final consensus of the draft protocol by experts in round 2 was 93%

Conclusion:
This consensus protocol will help to standardize the urinary catheter bundle care in hospitalized elderly patient, and assist in clinical decision-making for all healthcare professionals.
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Keywords: elderly patients, modified Delphi method and urinary catheter bundle care

References:


Abstract Summary:
The aim of this study is to establish clinical consensus for the protocol of urinary catheter bundle care in hospitalized elderly patient by using the modified Delphi method. It will help to standardize the urinary catheter bundle care in hospitalized elderly patient, and assist in clinical decision-making for all healthcare professionals.

Content Outline:
Introduction

1. Studies showed 73% of catheterized inpatients were elderly, of which up to 43.9-54% were improperly used.
2. The improper use of indwelling catheters increased the length of hospital stay and the mortality rate.
3. Carefully monitor the use of urinary catheter is important to prevent the iatrogenic damage caused by the inappropriate use of urinary catheter.
4. Unfortunately there was no clinical protocol related the urinary catheter bundle care specifically for the elderly patients.
5. The aim of this study is to establish clinical consensus for the protocol of urinary catheter bundle care in hospitalized elderly patient by using the modified Delphi method.
Body

1. A draft protocol of potentially relevant items was developed based on the results of systematic reviews. The items include "indwelling catheter medical indications", "urinary retention risk factors" and "remove indwelling catheter related strategies." a total of 30 items.

2. In round 1, 29 items met consensus. The item "If there is no need to assess the residual urine by the bladder scanner or intermittent straight catheters by the opinion of physicians that will be considered as successful removal." only reached 60% consensus that has revised as "After removal of Indwelling catheter, bladder scanner or intermittent straight catheters, urine output ≤ 100c and the amount of voluntarily void and residual urine> 2: 1 will be considered as successful removal."

3. The final consensus of the draft protocol by experts in round 2 was 93%.

Conclusion

1. This consensus protocol will help to standardize the urinary catheter bundle care in hospitalized elderly patients and assist in clinical decision-making for all healthcare professionals.

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