

※ 考生請注意：本試題 可 不可 使用計算機

一、請說明「隨機抽樣 Probability Sampling」的定義 (10%)，並舉例說明如何進行隨機抽樣 (10%)：20%

二、請簡述質性研究與量性研究的差異(10%)，且試舉一例說明適合運用質性研究之研究題目、研究對象、資料收集方法 (15%)：25%

三、請仔細閱讀下列研究論文之英文摘要，請列出該文章之關鍵詞 (5%)、研究族群 (5%)、研究設計 (5%)、介入措施 (5%)、測量此介入措施的成效變項為何 (5%)、主要的研究成果 (5%)、以及請用 APA 格式書寫該文章的出處 (5%)：35%

Effectiveness of an Aspiration Risk-Reduction Protocol

Metheny, Norma A.; Davis-Jackson, Jami; Stewart, Barbara J.

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Background: Aspiration of gastric contents is a serious problem in critically ill, mechanically ventilated patients receiving tube feedings.

Objectives: The purpose of this study was to evaluate the effectiveness of a three-pronged intervention to reduce aspiration risk in a group of critically ill, mechanically ventilated patients receiving tube feedings.

Methods: A two-group quasi-experimental design was used to compare outcomes of a usual care group (December 2002-September 2004) with those of an Aspiration Risk-Reduction Protocol (ARRP) group (January 2007-April

(背面仍有題目,請繼續作答)

系所組別： 護理學系乙、丙、丁、戊組

考試科目： 護理研究

考試日期：0307 · 節次：3

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2008). The incidence of aspiration and pneumonia was compared between the usual care group (n = 329) and the ARRП group (n = 145). The ARRП had three components: maintaining head-of-bed elevation at 30° or higher, unless contraindicated; inserting feeding tubes into distal small bowel, when indicated; and using an algorithmic approach for high gastric residual volumes.

Results: Two of the three ARRП components were implemented successfully. Almost 90% of the ARRП group had mean head-of-bed elevations of 30° or higher as compared to 38% in the usual care group. Almost three fourths of the ARRП group had feeding tubes placed in the small bowel as compared with less than 50% in the usual care group. Only three patients met the criteria for the high gastric residual volume algorithm. Aspiration was much lower in the ARRП group than that in the usual care group (39% vs. 88%, respectively). Similarly, pneumonia was much lower in the ARRП group than that in the usual care group (19% vs. 48%, respectively).

Discussion: Findings from this study suggest that a combination of a head-of-bed position elevated to at least 30° and use of a small-bowel feeding site can reduce the incidence of aspiration and aspiration-related pneumonia dramatically in critically ill, tube-fed patients.

四、請仔細閱讀下列表格 Table 3，請簡述 Usual care 及 ARRП 兩組之間顯著的差異為何：20%

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Table 3. Description of Usual Care and ARRP Groups

Variable	Usual care (n = 329)	ARRP group (n = 145)
Age (years)	52.5 ± 18.1	48.8 ± 17.8*
Gender		
Female	42.9%	35.2%
Male	57.1%	64.8%
APACHE II	22.7 ± 6.4	19.5 ± 5.7**
Service		
Neuromedicine/neurosurgery	30.4%	33.2%
Trauma/surgery	39.8%	44.8%
General medicine/pulmonary medicine	29.8%	22.1%
Level of consciousness (mean GCS score)	7.0 ± 2.8	6.9 ± 2.2
Level of sedation (mean Vancouver Interaction and Calmness Score)	35.7 ± 4.1	36.5 ± 4.1*
Feeding site		
Stomach throughout study	47.7%	27.6%**
Small bowel throughout study	40.7%	69.7%
Switch from stomach to small bowel	4.0%	0.0%
Switch from small bowel to stomach	7.6%	2.8%
Type of device during gastric feedings		
10-Fr polyurethane tube	47.1%	75.0%**
14- to 18-Fr polyvinyl chloride tube	52.9%	25.0%
Type of device during small-bowel feedings		
10-Fr polyurethane tube	100%	100%
One or more GRVs ≥250 ml in gastric-fed patients	15.9%	7.5%
Vomited at least once	5.8%	5.5%
Mean backrest elevation (°)	23.7 ± 12.4	37.8 ± 9.1**
Mean percent backrest elevation ≥30°	37.7%	88.4%**
Died during hospitalization	19%	14%

Note. ARRP = Aspiration Risk-Reduction Protocol Group; APACHE II = Acute Physiology and Chronic Health Evaluation II.

* $p \leq .05$.

** $p \leq .001$.