

護理實證比賽

組 長:郭麗琴護理長

輔導員:蔡瑞娥衛教師

組 員:陳麗美護理長

林雅慧護理長

姜姿杏護理師

花玉雯護理師

蘇佳萍護理師

臨床場景

(clinical scenario)

一位60歲陳姓患者，長期臥床，身高160公分，體重38公斤，平日飲食只喜歡吃蔬菜及稀飯，有一處3×5公分三級壓瘡位於尾骶骨，此次入院為病人有發燒之情形，懷疑傷口感染而入院，病人平日由媳婦照顧，詢問主要照顧者表示家中有一幼兒要照顧，所以氣墊床使用就可以不需要翻身，又可以降低壓瘡的發生，入院時護理人員未給予病人氣墊床使用，只提供傷口護理及翻身用物，傷口護理使用1:20優碘濕敷，及每1-2小時翻身一次，但是病人傷口無好轉且因行傷口擴創術有愈來愈大5×8公分之情形，家屬表示以前其他醫院是使用白色的水換藥，傷口沒有現在這麼大，而且其他醫院有讓我婆婆氣墊床，是不是因為妳們用的藥水的問題及為什麼不給我婆婆睡氣墊床呢？現在傷口癒來愈大怎麼辦？

臨床問題

媳婦表示病人平日使用氣墊床就可以不需要翻身，又可以降低壓瘡的發生。入院時護理人員因未給予病人氣墊床使用，造成病人傷口無好轉且愈來愈大。

背景

- 壓瘡是長期臥床病人常見之問題。
- 壓瘡治療過程繁複、耗時，醫療龐大，傷口若無完善照顧，除了延遲癒合外，可能有傷口感染，甚至死亡之合併症。
- 壓瘡之改善與預防需要多方面考量，如：營養、血循、改變擺位、減輕壓力、換藥等。



背景

床墊種類

1. 醫院用普通床墊(standard mattress)
2. 高密度泡棉墊(high-specification foam mattress)
3. 空氣墊或水墊
4. 間歇性氣墊(alternating pressure mattress)
5. 矽矽床 (air-fluidized mattress)
6. 動態性空氣墊(dynamic air mattress)
7. 低洩漏空氣墊(low-air-loss mattress)

大
↑
小

身體受壓程度



PICO

P atient	一位60歲尾骶骨壓瘡病人
I ntervention	使用減壓床墊
C omparison	使用一般床墊
O utcome	壓瘡傷口面積減小

資料搜尋

資 料 庫	文章篇數
次級資料庫	
Cochrane	8
UpToDate	2
初級資料庫	
Pub Med	47
中文電子期刊	93

Cochrane

key word: mattresses 共8筆

Wiley Online Library home The Cochrane Library Home

THE COCHRANE LIBRARY
Independent high-quality evidence for health care decision making

BROWSE
Cochrane Reviews: [By Topic](#) | [New Reviews](#) | [Updated Reviews](#) | [A-Z](#) | [By Review Group](#)
Other Resources: [Other Reviews](#) | [Clinical Trials](#) | [Methods Studies](#) | [Technology Assessments](#) | [Economic Evaluations](#)

SEARCH
Enter search term Title
[Advanced Search](#) | [MeSH Search](#)

There are 8 results out of 6244 records for: "mattresses in Title, Abstract or Keywords in Cochrane Database of Systematic Reviews"

View: 1-8

[Export All Results](#)

Record Information Issue: [Current](#) | [All](#) Restrict to: [Reviews](#) | [Protocols](#) | [Soc](#)

☐	Support surfaces for pressure ulcer prevention Elizabeth McInnes, Nicky A Cullum, Sally EM Bell-Syer, Jo C Dumville, Asmara Jammali-Blasi May 2010 Review
☐	Interventions to prevent hypothermia at birth in preterm and/or low birthweight infants Emma M McCall, Fiona Alderdice, Henry L Halliday, John G Jenkins, Sunita Vohra March 2010 Review
☐	Kinesthetic stimulation for preventing apnea in preterm infants David A Osborn, David J Henderson-Smart January 2010 Review
☐	Cot-nursing versus incubator care for preterm infants Peter H Gray, Vicki Flenady January 2009 Review
☐	Kinesthetic stimulation versus methylxanthine for apnea in preterm infants David A Osborn, David J Henderson-Smart January 2010 Review
☐	Pressure relieving devices for preventing heel pressure ulcers Jeannie Donnelly, George W Kernohan, Anne Witherow July 2008 Protocol
☐	House dust mite control measures for asthma Peter C Getzsche, Helle Krogh Johansen January 2010 Review
☐	Spinal immobilisation for trauma patients Irene Kwan, Frances Bunn, Ian G Roberts January 2009 Review

UpToDate.

key word: mattresses 共2筆

The screenshot shows the UpToDate website interface. At the top, the search bar contains the word "mattresses". Below the search bar, the navigation menu includes "New Search", "Patient Info", "What's New", and "Calculators". The search results are displayed in a list format. The first result is "Subacute and chronic low back pain: Pharmacologic and noninterventional treatment". The second result is "Closure of skin wounds with sutures". The third result is "Treatment of acute low back pain". The fourth result is "Sudden infant death syndrome". The fifth result is "Bedbugs". The sixth result is "Patient information: Sudden infant death syndrome (SIDS)". The seventh result is "Prevention of fire and burn injuries". The eighth result is "Prevention of pressure ulcers". The ninth result is "Treatment of pressure ulcers". The tenth result is "Allergen avoidance in the treatment of asthma and allergic rhinitis". The eleventh result is "Pressure ulcers: Epidemiology; pathogenesis; clinical manifestations; and staging". The twelfth result is "Continuous noninvasive ventilatory support for patients with neuromuscular or chest wall disease". The thirteenth result is "Short-term complications of the premature infant". The fourteenth result is "Transthoracic echocardiography: Normal cardiac anatomy and tomographic views". The fifteenth result is "Clinical features and management of heel pain in the young athlete". On the right side of the page, there is a "Topic Outline" section. The outline includes "INTRODUCTION", "ASSESSMENT AND STAGING", "GENERAL TREATMENT PRINCIPLES", and "ULCER TREATMENT BY STAGE". Under "GENERAL TREATMENT PRINCIPLES", there is a list of topics: "Monitoring", "Healing Scales", "Pain control", "Assess and optimize nutritional status", and "Mattresses and tissue pressure relief". The "Mattresses and tissue pressure relief" topic is highlighted with a red box. Under "ULCER TREATMENT BY STAGE", there is a list of topics: "Stage 1 treatment", "Stage 2 treatment", "Stages 3 and 4", "Wound infections", "Dressing choices", "Debridement", and "Surgery for wound closure".

UpToDate.
ONLINE 18.2

Search results for "mattresses"

All search results | Prioritize adult topics | Prioritize pediatric topics | Prioritize patient topics

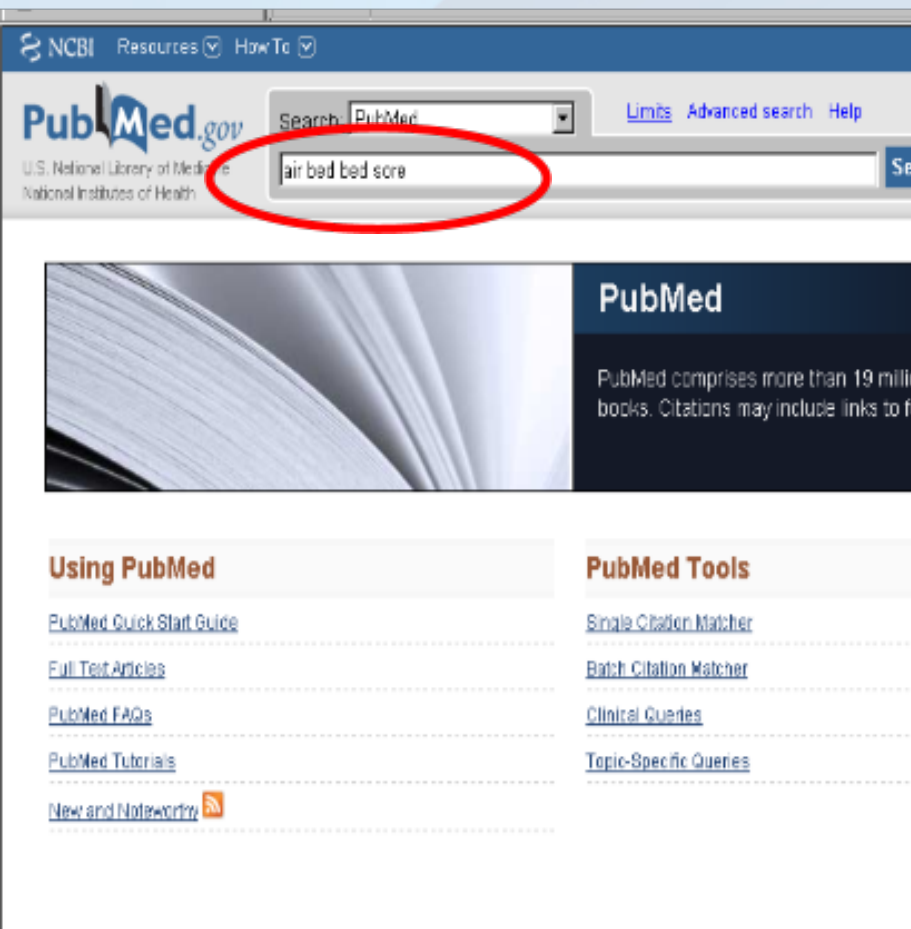
- Subacute and chronic low back pain: Pharmacologic and noninterventional treatment
- Closure of skin wounds with sutures
- Treatment of acute low back pain
- Sudden infant death syndrome
- Bedbugs
- Patient information: Sudden infant death syndrome (SIDS)
- Prevention of fire and burn injuries
- Prevention of pressure ulcers
- Treatment of pressure ulcers
- Allergen avoidance in the treatment of asthma and allergic rhinitis
- Pressure ulcers: Epidemiology; pathogenesis; clinical manifestations; and staging
- Continuous noninvasive ventilatory support for patients with neuromuscular or chest wall disease
- Short-term complications of the premature infant
- Transthoracic echocardiography: Normal cardiac anatomy and tomographic views
- Clinical features and management of heel pain in the young athlete

Topic Outline

- INTRODUCTION
- ASSESSMENT AND STAGING
- GENERAL TREATMENT PRINCIPLES
 - Monitoring
 - Healing Scales
 - Pain control
 - Assess and optimize nutritional status
 - Mattresses and tissue pressure relief
- ULCER TREATMENT BY STAGE
 - Stage 1 treatment
 - Stage 2 treatment
 - Stages 3 and 4
 - Wound infections
 - Dressing choices
 - Ulcers with heavy exudate
 - Desiccated ulcers
 - Debridement
 - Surgery for wound closure

Pub Med

key word: air bed bed sore 共24筆



NCBI Resources How To

PubMed.gov
U.S. National Library of Medicine
National Institutes of Health

Search: PubMed
air bed bed sore

Limits Advanced search Help

PubMed

PubMed comprises more than 19 million books. Citations may include links to full-text articles.

Using PubMed

- [PubMed Quick Start Guide](#)
- [Full Text Articles](#)
- [PubMed FAQs](#)
- [PubMed Tutorials](#)
- [New and Noteworthy](#)

PubMed Tools

- [Single Citation Matcher](#)
- [Batch Citation Matcher](#)
- [Clinical Queries](#)
- [Topic-Specific Queries](#)



NCBI Resources How To

PubMed.gov
U.S. National Library of Medicine
National Institutes of Health

Search: PubMed
air bed bed sore

RSS Save search Limits Advanced search Help

Search Clear

Display Settings: Summary, 20 per page, Sorted by Recently Added

Limits Activated: Humans, English [Change](#) [Remove](#)

Results: 1 to 20 of 24

- ☐ [Support surfaces for pressure ulcer prevention.](#)
1. McInnes E, Bell-Syer SE, Dumville JC, Legood R, Cullum NA.
Cochrane Database Syst Rev. 2008 Oct 8;(4):CD001735. Review.
PMID: 18843621 [PubMed - indexed for MEDLINE]
[Related citations](#)
- ☐ [Intermittent pneumatic compression in immobile patients.](#)
2. Partsch H.
Int Wound J. 2008 Jun;5(3):389-97. Review.
PMID: 18593389 [PubMed - indexed for MEDLINE]
[Related citations](#)
- ☐ [The effect of pressure-relieving surfaces on the prevention of heel ulcers in a variety of settings: a meta-analysis.](#)
3. Nicosia G, Gliatta AE, Woodbury MG, Houghton PE.
Int Wound J. 2007 Sep;4(3):197-207. Review.
PMID: 17924876 [PubMed - indexed for MEDLINE]
[Related citations](#)
- ☐ [Alternating pressure air mattresses as prevention for pressure ulcers: a literature review.](#)
4. Vanderwee K, Grypdonck M, Defloor T.
Int J Nurs Stud. 2008 May;45(5):784-801. Epub 2007 Oct 4. Review.

Pub Med

key word: pressure ulcer and mattresses 共23筆

NCBI Resources How To

PubMed.gov
U.S. National Library of Medicine
National Institutes of Health

Search: PubMed
pressure ulcer and mattresses
Search Clear

Display Settings: Summary, 20 per page, Sorted by Recently Added
Send to: [v]

Limits Activated: Humans, Clinical Trial, Editorial, Practice Guideline, Randomized Controlled Trial, Review, English, Adult: 19-44 years
published in the last 10 years Change Remove

Results: 1 to 20 of 23
<< First < Prev Page 1 Next > Last >>

☐ How does bed frame design influence tissue interface pressure? A comparison of four different technologies designed for long-term or home care.
1. Call E, Baker L.
J Tissue Viability. 2008 Feb;17(1):22-9. No abstract available.
PMID: 18293768 [PubMed - indexed for MEDLINE]
[Related citations](#)

☐ Physiological response of the heel tissue on pressure relief between three alternating pressure air mattresses.
2. Goossens RH, Rithalia SV.
J Tissue Viability. 2008 Feb;17(1):10-4.
PMID: 18293766 [PubMed - indexed for MEDLINE]
[Related citations](#)

☐ Comparing the effectiveness of a specialized alternating air pressure mattress replacement system and an air-fluidized integrated bed in the management of post-operative flap patients: a randomized controlled pilot study.
3. Finnegan MJ, Gazzero L, Finnegan JO, Lo P.
J Tissue Viability. 2008 Feb;17(1):2-9. No abstract available.

pressure ulcer and mattresses - PubMed result

12. Theaker C, Kuper M, Sori N.
Anaesthesia. 2005 Apr;60(4):395-9.
PMID: 15766343 [PubMed - indexed for MEDLINE]
[Related citations](#)

☐ Comparison of air-fluidized therapy with other support surfaces used to treat pressure ulcers in nursing home residents.
13. Ochs RF, Horn SD, van Rijswijk L, Pietsch C, Smout RJ.
Ostomy Wound Manage. 2005 Feb;51(2):38-68.
PMID: 15693554 [PubMed - indexed for MEDLINE]
[Related citations](#)

☐ The effect of body position and mattress type on interface pressure in quadriplegic adults: a pilot study.
14. Moody P, Gonzales J, Garton M.
Dermatol Nurs. 2004 Dec;16(6):507-12.
PMID: 15693927 [PubMed - indexed for MEDLINE]
[Related citations](#)

☐ Profiling beds versus standard hospital beds: effects on pressure ulcer incidence outcomes.
15. Kennh A, Dealan C.

中文資料庫(CEPS)

- 關鍵字:壓瘡或氣墊床
- 搜尋結果: 93 筆資料

airiti Library 華藝線上圖書館
(CEPS 思博網+CEDT 中文電子學位論文服務聯合查詢入口)

會員登入 | 免費加入會員
東港安泰醫院, 您好

首頁 瀏覽 個人化服務 授權合作 單位採購 使用說明

查詢條件: (壓瘡)=所有欄位 OR (氣墊床)=所有欄位
限制條件: 臺灣

簡易查詢 檢索結果再查詢 進階查詢

期刊文章(76) 學位論文(17) 會議論文(0) 電子書(0)

排序方式: 電子全文在前

共8頁 1 2

☐	序號	簡易書目
☐	1	篇名: Reconstruction of Ischial Pressure Sore-A Review of a 10-year Experience in a Single Institute 作者: 陳克剛(Ko-Kang Chen);張高評(Kao-Ping Chang);黃書鴻(Shu-Hung Huang);林幸道(Sin-Daw Lin);賴春生(Chung-Sheng Lai);李書欣(Su-Shin Lee) 來源: 中華民國整形外科醫學會雜誌 19卷2期(2010/06) 關鍵字: ischial pressure sore;pressure-sore reconstruction;flap
☐	2	篇名: 運用技術混合照護模式於臨床照護之成效 作者: 孫培蕾(Pei-Lei Sun);顏芳慧(Fang-Hui Yen) 來源: 榮總護理 27卷1期(2010/03) 關鍵字: 技術混合照護模式;照顧服務員;病患照護指標;skill-mix model;nurse aide;patients' outcome
☐	3	篇名: 壓瘡傷口局部使用phenytoin的治療效果 作者: 趙智淵;施綺珍 來源: 家庭醫學與基層醫療 25卷1期(2010/01) 關鍵字: pressure ulcer/sore;topical phenytoin
☐	4	篇名: 評估床墊與壓瘡相關性之輔助裝置設計 作者: 林千玉(Chian-Yuh Lin);陳怡伶(Yi-Ling Chen);顏章文(Tung-Wen Yen);黃才炯(Tsai-Jeon Huang);張立東(Li-Tung Chang)

Search Results

Show Results in:

Cochrane Reviews [0] | **Other Reviews [2]** | [Clinical Trials \[24\]](#) | [Methods Studies \[0\]](#) | [Technology Assessments \[0\]](#) | [Economic Evaluations \[1\]](#) | [Cochrane Groups \[0\]](#)

There are 2 results out of 12893 records for: "pressure sore and mattresses in Record Title in Database of Abstracts of Reviews of Effects"

[Save Search](#)

View: 1-2

[Edit Search](#)

[Export All Results](#)

Record Information

Sort by: [Record Title](#) | [Match %](#) | [Date](#)

- ☐ [Alternating pressure air mattresses as prevention for pressure ulcers: a literature review \(Structured abstract\)](#)
Centre for Reviews and Dissemination
Original Author(s): K Vanderwee, M Grypdonck, T Defloor
2008
- ☐ [Beds, mattresses and cushions for pressure sore prevention and treatment \(Brief record\)](#)
Centre for Reviews and Dissemination
Original Author(s): N Cullum, J Deeks, T A Sheldon, F Song, A W Fletcher
1999

[Select All](#) (to export citations)

[Wiley InterScience home](#) | [The Cochrane Library home](#)[My Profile](#) | [Log In](#)

 **THE COCHRANE LIBRARY**
Independent high-quality evidence for health care decision making

BROWSE
Cochrane Reviews: [By Topic](#) | [New Reviews](#) | [Updated Reviews](#) | [A-Z](#) | [By Review Group](#)
Other Resources: [Other Reviews](#) | [Clinical Trials](#) | [Methods Studies](#) | [Technology Assessments](#) | [Economic Evaluations](#)

SEARCH
 Enter search term | [Title, Abstract or Keywords](#) | [Go](#)
[Advanced Search](#) | [MeSH Search](#) | [Search History](#) | [Saved Searches](#)

Views: 1-25 | 26-37 [Edit Search](#)

[Export All Results](#)

Record Information

Issue: [Current](#) | [All](#) | Restrict to: [Reviews](#) | [Protocols](#) | Sort by: [Record Title](#) | [Match %](#) | [Date](#)

☐ [Support surfaces for pressure ulcer prevention](#)
Elizabeth McInnes, Nicky A Cullum, Sally EM Bell-Syer, Jo C Dumville, Asmara Jammali-Blasi
May 2010
[Abstract](#)

☐ [Colostrum versus incubator care for preterm infants](#)
Peter H Gray, Vicki Flendy
January 2008
[Abstract](#)

[Intervention Review] [+](#)

Support surfaces for pressure ulcer prevention [+](#)

Elizabeth McInnes¹, Nicky A Cullum², Sally EM Bell-Syer², Jo C Dumville², Asmara Jammali-Blasi¹ [+](#)

UpToDate.

UpToDate.
ONLINE 18.2

Home | Contact us | About UpToDate | Careers | Help

MATTRESSES Search

LOG IN
FEEDBACK

New Search Patient Info What's New Calculators

Back to Search Results for "MATTRESSES"

Find Print Email

Prevention of pressure ulcers

Databases — Large databases have also been used to derive prediction rules. One study, for example, used a database with over 30,000 long-term care patients to identify eleven characteristics associated with pressure ulcer development [25]. The Minimum Data Set has been used to develop a predictive model for nursing homes that considers 17 patient characteristics [26,27]. An expected probability of ulcer development can then be calculated for each patient. It remains to be established whether this methodology will be clinically useful.

PRESSURE RELIEF — Pressure relief is the most important factor in preventing pressure ulcers and may be accomplished in two ways: proper patient positioning and appropriate use of pressure-reducing devices.

Patient positioning — Proper positioning of bed-bound individuals is recommended, including a regular turning and repositioning schedule, with particular attention to vulnerable tissue covering bony prominences such as the sacrum [28]. Typically, a two-hour interval is recommended although this is based upon expert opinion in the absence of randomized trials [28-32].

A randomized controlled trial of repositioning, conducted in 16 elder care nursing homes, compared repositioning with alternating time intervals (two hours in a lateral position and four hours supine) with repositioning every four hours [29]. There was no statistically significant difference in ulcer incidence, severity, or location between the two groups.

Despite the paucity of randomized controlled trials, it has been demonstrated that skin erythema can occur in healthy adults in less than two hours on a standard mattress [33]. Skin with borderline perfusion at baseline will often develop irreversible changes even with shorter intervals of pressure.

Prevention of progression of a stage 1 pressure ulcer may require more frequent repositioning [34].

Help improve UpToDate. Did UpToDate answer your question? Yes No

減壓是預防壓瘡最重要的因素，可應用於病人正確的擺位和使用適當減壓裝置。

UpToDate.

Treatment of pressure ulcers

UpToDate.
ONLINE 18.2

MATTRESSES Search

Home | Contact us | About UpToDate | Careers | Help

LOG IN
FEEDBACK

New Search Patient Info What's New Calculators

Back to Search Results for "MATTRESSES"

Treatment of pressure ulcers

Find Print Email

TOPIC OUTLINE

INTRODUCTION

ASSESSMENT AND STAGING

GENERAL TREATMENT PRINCIPLES

- Monitoring
- Healing Scales
- Pain control
- Assess and optimize nutritional status
- Mattresses and tissue pressure relief

ULCER TREATMENT BY STAGE

- Stage 1 treatment
- Stage 2 treatment
- Stages 3 and 4
- Wound infections
- Dressing choices
 - Ulcers with heavy exudate
 - Desiccated ulcers
- Debridement
- Surgery for wound closure

randomized clinical trials with inconsistent results. However, none of the studies compared a specialized support surface with a standard mattress [2].

- A randomized trial of 158 hospitalized patients found no difference in pressure ulcer healing between 85 patients on nonpowered support devices and 83 on powered support devices [29].
- In a study of 65 hospitalized patients with pressure ulcers, 31 patients were given an air-fluidized bed and repositioned every four hours, while 34 patients received conventional therapy with an air mattress covered by a foam pad and repositioning every two hours [23]. The latter group also used elbow or heel pads as needed. Pressure ulcers showed a median decrease in total surface area on the air-fluidized beds, while increasing in size with conventional therapy (-1.2 versus +0.5 cm²). The difference was even greater in patients with large ulcers at baseline.
- In another report of 84 nursing home residents with pressure ulcers, subjects treated with a low-air-loss bed were 2.5 times more likely to heal compared with those using a foam mattress [30].

Given limited data, it is uncertain if powered mattresses are superior to non powered mattresses [2]. However, specialized support surfaces appear to be of benefit and should be used, when available, instead of a standard mattress. Specialized beds may be most important for selected patients in whom rapid healing of the pressure ulcer is critical in meeting overall treatment goals,

Help improve UpToDate. Did UpToDate answer your question? Yes No

Medline ® Abstract for Reference 23
of 'Treatment of pressure ulcers'

23

TI Air-fluidized beds or conventional therapy for pressure sores. A randomized trial.

AU Allman RM; Walker JM; Hart MK; Laprade CA; Noel LB; Smith CR

SO Ann Intern Med 1987 Nov;107(5):641-8.

STUDY OBJECTIVE: To compare the effectiveness and adverse effects of air-fluidized beds and conventional therapy for patients with pressure sores. **DESIGN:** Randomized trial with both masked and unmasked comparisons of outcome after a median follow-up of 13 days (range, 4 to 77 days). **SETTING:** Urban, academic referral, and primary care medical center. **PATIENTS:** Of 140 potentially eligible hospitalized patients with pressure sores, 72 consented to randomization; 65 (90%) completed the study. **INTERVENTIONS:** Thirty-one patients on air-fluidized beds (Clinibron Therapy, Support Systems International, Inc., Charleston, South Carolina) repositioned every 4 hours from 0700h to 2300h without use of other antipressure devices. Thirty-four patients on conventional therapy used an alternating air-mattress covered by a foam pad (Lapetus Air Float System, American Pharmaceutical Company, Cincinnati, Ohio) on a regular hospital bed; were repositioned every 2 hours; and had elbow or heel pads as needed. Topical therapy was standardized for both groups. **MEASUREMENTS AND MAIN RESULTS:** Pressure sores showed a median decrease in total surface area (-1.2 cm²) on air-fluidized beds, but showed a median increase (+0.5 cm²) on conventional therapy; 95% confidence interval (CI) for the difference between medians, -9.2 to -0.6 cm² (p = 0.01). Improvement, as assessed from serial color photographs by investigators masked to treatment group, occurred in 71% and 47%, respectively; 95% CI for the difference, 1% to 47% (p = 0.05). For pressure sores 7.8 cm² or greater, outcome differences between air-fluidized beds and conventional therapy were greater: median total surface area change was -5.3 and +4.0 cm², respectively; 95% CI for the difference, -42.2 to -3.2 cm² (p = 0.01). Improvement rates were 62% and 29% respectively; 95% CI for difference, 1% to 65% (p = 0.05). After adjusting for other factors associated with sore outcome, the estimated relative odds of showing improvement with air-fluidized beds were 5.6-fold (95% CI, 1.4 to 21.7) greater than with conventional therapy (p = 0.01). No significant increase in adverse effects was seen with air-fluidized beds. **CONCLUSIONS:** Our findings suggest that air-fluidized beds are more effective than conventional therapy, particularly for large pressure sores. Studies are needed to determine the effectiveness of air-fluidized beds in long-term care settings.

等級:1B**醫學中心65個有壓瘡病患隨機使用矽砂床墊 (air fluidized bed) 結果:****一.31個使用矽砂床床墊病患傷口受壓面積可減少-1.2平方公分, 34個使用傳統海綿床墊增加受壓面積+0.5平方公分。****二.矽砂床床墊比傳統床墊在改善壓瘡皮膚受壓上有更多的效果。**



Medline ® Abstract for Reference 30 of 'Treatment of pressure ulcers'

30

TI A randomized trial of low-air-loss beds for treatment of pressure ulcers.

AU Ferrell BA; Osterweil D; Christenson P

SO JAMA 1993 Jan 27;269(4):494-7.

OBJECTIVE--To assess the effectiveness of low-air-loss beds for the treatment of pressure ulcers in nursing homes. DESIGN--Prospective, randomized, clinical trial. SETTING--Three teaching nursing homes in Los Angeles, Calif. SUBJECTS--Eighty-four nursing home residents with trunk or trochanter pressure ulcers (Shea stage ≥ 2). INTERVENTIONS--Subjects were randomly assigned to use either a low-air-loss bed ($n = 43$) or a 10-cm corrugated foam mattress ($n = 41$) throughout the healing of their ulcers. OUTCOME MEASURES--Ulcers were assessed twice weekly using surface area and two observational scales (median follow-up, 37.5 days; range, 4 to 571 days). RESULTS--Groups were similar with respect to demographics, medical variables, wound care, and early dropouts. Results indicate more than a threefold improvement in median rate of healing for low-air-loss bed compared with foam mattresses (9.0 vs 2.5 mm²/d; $P = .0002$). This finding was true for deep as well as superficial ulcers (deep ulcers, 9.9 vs 0.7 mm²/d; $P = .02$; superficial ulcers, 9.0 vs 3.2 mm²/d; $P = .004$). Cox regression models revealed that the bed, ulcer depth, and fecal continence had independent effects on healing. After controlling for fecal continence, the deep and superficial subgroups using low-air-loss beds remained 2.5 times more likely to heal in a given length of time compared with those using foam mattresses (combined cure probability ratio, 2.66; 95% confidence interval, 1.34 to 5.17; $P < .004$). CONCLUSION--Low-air-loss beds provide substantial improvement compared with foam mattresses despite other factors in pressure ulcer healing.

AD Department of Medicine, UCLA School of Medicine.

PMID 8338511

等級:1B
結論:隨機實驗使用矽砂床墊於84個2級以上壓瘡護理之家住民,結果有使用矽砂床墊住民,不管深淺壓瘡傷口均有超過3倍傷口癒合率。

Search PubMed

Limits Advanced search Help

Search Clear

Display Settings Abstract

Send to

Int J Wound J. 2007 Sep;4(3):197-207.

The effect of pressure-relieving surfaces on the prevention of heel ulcers in a variety of settings: a meta-analysis.

Nicosia G, Giliada AE, Woodbury MG, Houghton PE

School of Physical Therapy, Faculty of Health Sciences, The University of Western Ontario, London, Ontario, Canada.

Abstract

This meta-analysis investigated the effectiveness of a pressure-relieving intervention on the incidence of heel pressure ulcers in a variety of settings. Literature searches of Cumulative Index to Nursing and Allied Health Literature, MEDLINE, PubMed, EMBASE and Cochrane databases were conducted for English-language articles that investigated the effect of pressure relief interventions with or without concurrent prevention programs on the number of heel ulcers occurring on adult humans in a controlled clinical design. Full articles were selected from citations based upon consensus between at least two independent reviewers. Methodological quality of each study was assessed using the Jadad and PEDro scales. A quantitative analysis was performed to determine and compare relative risk (RR) between pressure relief programs/devices that were classified according to similarity of interventions. Fourteen studies that involved a total of 1457 subjects were selected from a total of 105 full articles reviewed.

Pressure-reducing/relieving surfaces were associated with a significantly lower incidence of heel ulcers compared with standard hospital mattresses (RR = 0.50, 95% CI = 0.26-0.93, P = 0.03). Foam mattresses also significantly reduced the risk of developing heel ulcers. There is evidence to support the use of certain air or foam mattresses/overlays in the prevention of heel pressure ulcers when compared with a standard hospital mattress. There is insufficient research available at this time to determine if heel-protective devices can prevent heel pressure ulcers. These results need to be interpreted with caution given the relatively low number and poor quality of research articles available to date.

等級: 1A

分析:解除腳跟的壓力能有效減少潰瘍發生。泡沫床墊比標準醫院床墊減能顯著降低足跟潰瘍的發病率度 (RR = 0.50, 95%CI 為 0.26-0.93, p<0.03) 泡沫床墊也大大降低足跟潰瘍風險。有證據支持使用某些空氣或泡沫床墊 / 覆蓋在足跟比起標準的醫院床墊更能預防褥瘡。

Ostomy Wound Manage. 2005 Feb;51(2):38-68.

Comparison of air-fluidized therapy with other support surfaces used to treat pressure ulcers in nursing home residents.

Ochs RF, Horn SD, van Rijswijk L, Pietsch C, Smout RJ.

Indiana University School of Medicine, Indianapolis, IN, USA. rfochsross@aol.com

Abstract

To provide empirical evidence comparing pressure ulcer healing rates between different support surfaces, data were analyzed from eligible residents with pressure ulcers (N = 664) enrolled in the National Pressure Ulcer Long-Term Care Study, a retrospective pressure ulcer prevention and treatment study. Support surfaces were categorized as: Group 1 (static overlays and replacement mattresses), Group 2 (low-air-loss beds, alternating pressure, and powered/non-powered overlays/mattresses), and Group 3 (air-fluidized beds). Calculation of healing rates, using the largest ulcer from each resident, found mean healing rates greatest for air-fluidized therapy (Group 3) (mean = 5.2 cm²/week) versus Group 1 (mean = 1.5 cm²/week) and Group 2 (mean = 1.8 cm²/week) surfaces (P = 0.007). Healing rates also were assessed using 7- to 10-day "episodes"; each ulcer generated separate episode(s) that included all ulcers when residents had multiple ulcers. Mean healing rates were significantly greater for Stage III/IV ulcers on Group 3 surfaces (mean = 3.1 cm²/week) versus Group 1 (mean = 0.6 cm²/week) and Group 2 (mean = 0.7 cm²/week) surfaces (Group 2 versus Group 3: P = 0.0211). This finding persisted for ulcers with comparable initial baseline areas (20 cm² to 75 cm²) on Group 2 and Group 3 surfaces; healing improved on Group 3 surfaces (+2.3 cm²/week) versus Group 2 surfaces (-1.1 cm²/week, P = 0.0399). Residents on Group 3 (6 out of 82; 7.3%) and Group 1 (47 out of 461; 10.2%) surfaces had fewer hospitalizations and emergency room visits than those on Group 2 surfaces (23 out of 121; 19.0%, P = 0.01) despite significantly greater illness in residents on Group 2 and 3 versus Group 1 surfaces (P is less than 0.0001). Despite limitations inherent in retrospective studies, ulcers on Group 3 surfaces versus Groups 1 and Group 2 surfaces had statistically significant faster healing rates (particularly for Stage III/IV ulcers) with significantly fewer hospitalizations and emergency room visits (Group 3 versus Group 2), despite significantly more illness in residents on Group 2 or Group 3 versus Group 1 surfaces. Episode analyses -- providing greater power, uniform treatment duration, and comparable baseline sizes -- confirmed these findings. Air-fluidized support surfaces represent great healing potential that justifies further exploration.

等級:4級

1.回顧性研究分析664個長期臥床住民依使用不同床墊氣墊床對壓瘡傷口癒合率不同。

2.結果顯示:使用矽砂床床墊比低壓氣浮床墊一般支持床墊更能提供更好的支持介面以促進壓瘡癒合。

CEPS

Huang);張立東(Li-Tung Chang)

來源：嘉南學報(科技類) 35期(2009/12)

關鍵字：壓瘡;床墊;有限元素分析;pressure ulcer;mattress;finite element analysis

5 篇名：**一位腦中風個案之“出院準備服務”之經驗**

作者：陳淑貞(Shu-Chen Chen);吳麗淑(Li-Shu Wu)

來源：澄清醫護管理雜誌 5卷3期(2009/07)

關鍵字：腦中風;主要照顧者;出院準備服務;CVA;primary care giver;discharge planning service

6 篇名：**脊椎手術壓瘡預防與減壓擺位裝置之探討**

作者：吳祚光(Tso-Kuang Wu);鍾文珍(Wen-Jane Chung);程麗玲(Li-Ling Cheng);戴宏達(Hung-Da Dai)

來源：榮總護理 26卷2期(2009/06)

關鍵字：脊椎手術;壓瘡;減壓介面;減壓材質;擺位裝置;spine surgery;pressure ulcer;pressure-relieving interface;pressure-relieving material;positioning devices

7 篇名：**建立傷口照護標準－以壓瘡傷口為例**

作者：周繡玲(Hsiu-Ling Chou);楊立華(Luke Yang);馮容芬(Rong-Fen Feng)

patients

52 篇名：**壓瘡預防－減壓床墊之比較與護理應用**

作者：于博芮(P.-J. Yu);戴玉慈(Y.-T. Dai)

來源：護理雜誌 46卷2期(1999/04)

關鍵字：壓瘡預防;減壓器材;臨床護理;prevention of pressure ulcer;pressure reducing material;clinical nursing

53 篇名：**慢性傷口之物理治療**

作者：鐘秀慧(Hsiu-Hui Chung);胡名霞(Ming-Hsia Hu)

來源：中華民國物理治療學會雜誌 22卷1期(1997/01)

脊椎手術壓瘡預防與減壓擺位裝置之探討

吳祥光／台北榮民總醫院護理師
鍾文珍／台北榮民總醫院護理師護理長
程麗均／台北榮民總醫院護理師
戴宏遠／台北榮民總醫院護理師護理長

摘要

本文針對脊椎手術擺位與擺位裝置之壓瘡預防措施進行相關文獻探討，發現減壓介面須能增加接觸面積，有效分散壓力點，在材質特性上，具有透氣性，此外基於手術室感染管制與成本考量下須具有易清潔、可重複使用及購置成本費用較經濟等特性。在本國相關研究中發現同尺寸類防墊價格高達泡棉墊的250倍，但類防墊與泡棉墊對壓瘡預防效果並無統計上顯著差異，因此兼具減壓效果及經濟效益的減壓材質，尚待日後進一步探討。

關鍵詞：脊椎手術、壓瘡、減壓介面、減壓材質、擺位裝置

每上升1℃，個體的新陳代謝速度及氧氣的耗損便會提升10%，故當壓力已造成組織缺血，則氧氣需求量及細胞代謝廢物增加，便會提高皮膚壞死的機會(Consortium for spinal cord medicine clinical practice guidelines, 2001; 陳、邱, 2002)。

(三)手術特質危險因素

包含手術時間、手術床、手術擺位、擺位裝置、加熱裝置、麻醉種類、血液動力狀態、牽引裝置、手術種類等(戴、李、傅、鍾、明, 2002; Armstrong & Bortz, 2001)。

1. 手術時間：有些文獻發現手術時間介於1.5-2小時即有壓瘡形成的可能性，但大多數的研究都將低於3小時的手術排除在外(Armstrong & Bortz, 2001)。

2. 手術床：有許多研究指出手術床床墊之材質與支托是導致手術壓瘡形成一個危險因素(Armstrong & Bortz, 2001)。

3. 麻醉種類：由於脊椎手術病人必須接受全身麻醉，才能進行手術，在病人喪失對壓力的移除或改變身體姿勢的活動能力下；

低至接近微血管壓力，如發泡體床墊(urethane mattress)；(二)紓壓介面(pressure-relief surfaces)，是持續維持低於微血管壓力，如動態空氣墊(Dynamic air mattress)。

將各種支撐介面以身體所受的壓力程度排序，由大至小依序為：醫院用的普通床墊(standard mattress)、高密度泡棉墊(high-specification foam mattress)、空氣墊或水墊、間歇性氣墊(alternating pressure mattress)、矽砂床(aerofluidized)、動態性空氣墊(dynamic air mattress)、低洩漏空氣墊(low-air-loss mattress)等，其造價也相對由低於39英鎊到高於5,645英鎊(Royal College of Nursing, RCN, 2003)。上述前三者屬於靜態的(static)支撐介面，主要藉由材質本身與厚薄程度，達到不同程度的減壓效果。大多數研究指出靜態且具有黏著性與伸縮性的聚合材質墊(dry viscoelastic polymer)或脂肪墊(gel)比普通床墊(standard mattress)有顯著的減壓效果(Schultz, 2005)。

在系統性文獻回顧中指出，泡棉墊比普通床墊有較佳的減壓效果，其中泡棉墊的厚

經由此文獻探討，適當支撐的減壓介面可減輕身體受壓的程度，如氣墊床，其主要是藉由其材質本身與厚薄程度，以達到不同程度的減壓效果。對於發生壓瘡高危險病人若使用氣墊床、間歇性氣墊床或其他高科技減壓裝置其實是有相當助益的。

壓瘡預防——減壓床墊之比較與護理應用

Prevention of Pressure Ulcer: The Comparison and Application of Pressure Reducing Mattress

于博芮 P.J. Yu • 戴玉慈 Y.T. Dai

于博芮女士：國立台灣大學護理學研究所碩士，現任台大護理學系講師，台大護研所博士班學生。

戴玉慈女士：美國西雅圖華盛頓大學哲學博士，現任國立台灣大學護理學系副教授。

摘要

壓瘡雖為人體局部組織的損傷，但所引發的合併症可危及個體的生命。本文的目的除回顧文獻外，探討壓瘡的內在及外在危險因子。針對壓瘡防治措施中的減緩壓力的預防措施及器材深入探討，如減壓床墊包括泡沫墊（foam）、空氣墊或水墊、間歇性氣墊（alternating）、低壓氣浮床墊（low-air-loss）及矽砂床（air-fluidized）、電動持續兩側翻轉床（lateral rotation）等，並強調在臨床護理的應用。

關鍵詞：壓瘡預防（prevention of pressure ulcer）、減壓器材（pressure reducing material）、臨床護理（clinical nursing）。

結論：

1. 文獻探討，不同病患、不同臥姿所產生之薦骨足跟部位所發生之壓瘡機率便有所不同。
2. 壓瘡預防及治療除了了解壓瘡形成原因之外，若更了解減壓器材之優缺點，選擇適當又經濟的減壓床墊，如氣墊床，不但可減少壓瘡發生及促進壓瘡傷口之癒合。

文獻評讀

資料庫種類	文章篇數	符合	不符合
Cochrane	8	0	8
UpToDate	2	2	0
PubMed	47	1	46
中文電子期刊	93	0	93

文獻評讀

等級	篇名
1A	The effect of pressure-relieving surfaces on the prevention of heel ulcers in a variety of settings: a meta-analysis. Nicosia G, Gliatta AE, Woodbury MG, Houghton PE. Int Wound J. 2007 Sep;4(3):197-207
1B	1. A randomized trial of low-air-loss beds for treatment of pressure ulcers. Ferrell BA; Osterweil D; Christenson P JAMA 1993 Jan 27;269(4):494-7. 2. The effect of pressure-relieving surfaces on the prevention of heel ulcers in a variety of settings: a meta-analysis. Nicosia G, Gliatta AE, Woodbury MG, Houghton PE. Int Wound J. 2007 Sep;4(3):197-207 3. Air-fluidized beds or conventional therapy for pressure sores. A randomized trial. Allman RM; Walker JM; Hart MK; Laprade CA; Noel LB; Smith CR Ann Intern Med 1987 Nov;107(5):641-8.
4	1. Comparison of air-fluidized therapy with other support surfaces used to treat pressure ulcers in nursing home residents. Ochs RF, Horn SD, van Rijswijk L, Pietsch C, Smout RJ. Indiana University School of Medicine, Indianapolis, IN, USA. Ostomy Wound Manage. 2005 Feb;51(2):38-68

結論是否能應用於我的病人

✘文獻內容與病患相符者有3篇，研究結果可對病患是有助益

- 人口學特色：研究族群為60歲以上之安養住民、手術後臥床病人、探討使用氣墊床對傷口影響程度
- 危險因子：長期臥床、有壓瘡發生(尾底骨)

✘我的機構能提供這樣的治療嗎？

目前本院無氣墊床可提供租借。

結論是否能應用於我的病人

✖治療對病人的潛在的益處或風險：
使用氣墊床合併傷口處理應可增加療效。

✖病人的價值觀及期望：
家屬不想使用二手貨或租借,建議自家中帶來醫院。



心得感言



心得感言

- 臨床工作忙碌，一切的解決方法就是「經驗傳承」此次護理部推動實證比賽，剛開始害怕又擔心的心情，從來沒聽過這實證兩個字！真是孤陋寡聞。
- 很慶幸自己參加了此次實證比賽，學到了如何利用PICO原則來問問題，文獻有等級之分？！
找尋文獻的過程當中非常的辛苦，
望著一堆的英文及中文資料，心中實在非常的害怕！不過當找到有關的資料時，那時心中真的欣喜若狂呀！
Ω完成的過程很痛苦，享受了討論的充實感及分享完成的喜悅感!!