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**W**elcome to the 2003 issue of The HITH Review. The articles from this edition bring the total number of HITH related articles held at ACA to over 5000. Although we continue to find articles from the literature that may be relevant to our readers we have noted a decrease in publications in the last year. In this issue we have articles on a broad range of issues relevant to HITH practitioners.

Most of the articles listed in this review are available from libraries in Australia with some available from journal websites. Copies of articles with an asterisk (★) required for educational or research purposes can be requested from ACA when they are not available from your library. An order form is available on our website.

We appreciate receiving your feedback on The HITH Review and would particularly welcome any contributions. Please contact us if you wish to be included on our mailing list. The HITH Review is available free of charge in hard copy from the ACA or can be accessed on the ACA Web page. Those preferring to receive The HITH Review in electronic format should forward their E-mail address to us.

The support of the Acute Health Division, Department of Human Services is gratefully acknowledged.

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## Ceftazidime continuous infusions for febrile neutropenia

Alex Padiglione

Egerer G, Goldschmidt H, Hensel M, et al. *Continuous infusion of ceftazidime for patients with breast cancer and multiple myeloma receiving high-dose chemotherapy and peripheral blood stem cell transplantation*. Bone Marrow Transpl 2002; 30: 427-31. ★

This prospective study examined the safety and efficacy of a continuous infusion of ceftazidime in patients who developed febrile neutropaenia after high-dose chemotherapy (HDCT), and autologous peripheral blood stem cell transplantation (PBSCT). 55 patients with breast cancer and 32 patients with multiple myeloma were studied. The febrile patients received a 2 g intravenous bolus of ceftazidime, followed by a 4 g continuous infusion over 24 hours using a portable infusion pump. If the fever persisted for 72 hours a glycopeptide antibiotic was added.

Around two-thirds in each group responded to the monotherapy with ceftazidime. After addition of a glycopeptide antibiotic, an additional 20-30% became afebrile. Overall 75% of the breast cancer and 69% of the multiple myeloma patients were successfully managed by outpatient treatment, resulting in an average saving of 20 days of inpatient care. The results indicate patients with febrile neutropaenia after HDCT and PBSCT can, with close monitoring, be safely treated as outpatients.

### comment

The scope of diseases treatable by HITH continues to widen. Only a few centres around Australia routinely treat febrile neutropaenia, and it has normally only been done in patients who receive “lower” doses of chemotherapy (where the expected duration of neutropaenia is short). This study supports the practice in carefully selected patients who receive high dose chemotherapy, and where the expected duration of neutropaenia is quite long (average was 11 days in this study). There are a number of caveats however. The study design is limited in that it is a purely observational study, though the results seem similar to those from standard inpatient treatment.

Patients were required to stay in a flat or hotel near the hospital, and nearly a quarter of all patients started on outpatient therapy ended up being admitted as inpatients (though many of these were for reasons other than failure of treatment).

## Use of warming for peripheral cannula insertion

Alex Padiglione

Lenhardt R, Seybold T, Kimberger O, et al. *Local warming and insertion of peripheral venous cannulas: single blinded prospective randomised controlled trial and single blinded randomised crossover trial*. Br Med J 2002; 325:1-4.

The authors used a novel carbon fibre “heating mitt” to warm patients hands to 52 degrees for 10-15 minutes before attempting cannula insertion. In a single blinded study design they showed significant improvements in success rates and a reduction in time taken for catheter insertion in the treatment group. No untoward side effects were seen.

### comment

The apparently banal act of cannula insertion can be traumatic for both patient and healthcare provider, particularly in someone with “bad veins”. Although heating (e.g. by placing the arm in a bowl of warm water, or wrapped in a warm towel) has been used for many years, this is the first study to demonstrate its effectiveness. The mitt sounds like an attractive option, but carries its own problems – in particular the requirement to put on the mitt 15 minutes before the attempt at cannulation, and the need for a power supply might limit its practical application. However anything that makes routine and common jobs like intravenous insertion easier is most welcome.

## Review of inotropes in heart failure

Alex Padiglione

Thackray S, Easthaugh J, Freemantle N, et al. *The effectiveness and relative effectiveness of intravenous inotropic drugs acting through the adrenergic pathway in patients with heart failure - a meta-regression analysis*. *Europ J Heart Failure* 2002; 4: 515-29.

These authors report a meta-analysis of the role of intravenous inotropic agents in patients with heart failure. In total, 21 trials, that included 632 patients were identified, five of which were conducted in an outpatient setting. The following drugs were included: dobutamine, high-dose dopamine, dopexamine and the phosphodiesterase inhibitors; amrinone, milrinone, enoximone and toborinone. Most of these trials were small, and most failed to report clinically important outcomes. Taken together there was a trend to an INCREASED mortality (odds ratio 1.50) but the paucity of data meant that this did not reach significance (95% CI=0.51 to 3.92).

### comment

Intractable cardiac failure is a severe disease with high morbidity and mortality. Inotropic agents have been used in the outpatient setting, but their use has remained controversial. This analysis shows that there is very little evidence that such treatment improves symptoms and may in fact lead to worse outcomes. Such treatment should not be routinely pursued until more research is done.

## Quality of life assessment in HITH

Lisa Demos

Goodfellow AF, Wai AO, Frighetto L et al. *Quality-of-life assessment in an outpatient antibiotic program*. *Ann Pharmacother* 2002; 36:1851-5. ★

The aims of this study was to measure changes in health related quality of life and identify predictors of this change in patients enrolled in the outpatient parenteral antibiotic therapy program. The majority of patients were receiving antibiotics for osteomyelitis (48%).

Quality of life was assessed in patients treated by the program at a Canadian Hospital over a 15 month period using short Form-36 (SF-36) questionnaires. Eight health domains are assessed: physical functioning, role limitations due to physical problems, social functioning, bodily pain, mental health, role limitations due to emotional problems, vitality and general health perceptions. Mental and physical component summary scales (MCS and PCS) scores are calculated from the eight domains. The questionnaires were administered 48 hours prior to hospital discharge and 26 to 30 days after discharge. Of the 134 patients enrolled in the program 83 completed the paired SF-36 questionnaires. There was significant improvement in 3 domains (physical functioning, bodily pain and emotional problems) and in the MCS scale scores over the 4 weeks. Using multiple linear-regression analysis the predictors of change in the PCS scores when patients were transferred from hospital to home were infectious diseases diagnosis and baseline PCS scores whereas the indicators of change in MCS scores were length of hospital stay and baseline MCS scores.

### comment

The results from this study indicate that the patient's health status continues to improve after discharge as we would expect. The real issue is whether the SF-36, a generic questionnaire for health related quality of life is a sensitive and clinically relevant tool to measure change in this population. The authors acknowledge this and recommend further studies on the validity, reliability and sensitivity to change of the SF-36 in this patient population. This article was difficult to read and would have greatly benefited by including a comparison with patients managed in hospital.

## Home Care Nursing in the US

Kaylene Fiddes

Humphrey CJ. *The current status of home care nursing practice. Part 1: clinical practice under PPS*. *Home Healthcare Nurse* 2002; 20:677-84. ★

Humphrey CJ. *The current status of home care nursing practice. Part 2: operational trends and future challenges*. *Home Healthcare Nurse* 2002; 20:741-7. ★

These articles discuss current clinical practice and operational trends of home health services in the United States, following a survey and interview of 34 US home health agency clinicians and clinical managers and 5 consultants during 2002. The results were presented in a 2 part series. Some of the findings of the survey include:

- The majority of inservices/education had been spent on training related to administrative activities eg IT systems as opposed to clinical practice
- There was a perceived need to focus education back on clinical practice
- Strategies implemented to increase clinical practice education include practice rounds, journal clubs, increased library holdings, expanded orientation, and teleconference inservices
- There was an increase in the use of nursing specialists (eg cardiac, oncology, diabetes, wound care) as opposed to generalist nurses
- Most agencies have a wound care specialist on staff
- Intensive programs of teaching strategies for patient education have been implemented
- There was increased training in case and disease management
- Processes to assist with shorter rates of length of stay per episode had been implemented
- There was a large amount of resources used on information systems for clinical outcome data management
- There was movement towards point of care devices for clinicians
- Processes for patient intake were more focused with a trend for more clinicians working in "intake"
- Productivity measurements appear to remain as per visits per day or per week although visit expectations varied
- There was an increase in outcome based quality improvement and implementation of evidence based practice in protocols and pathways

## comment

Whilst these articles focus on the practices of HITH in another country's health system, some of the agency activities described may provide ideas for Australian HITH services, such as the education strategies. It may also be of interest to HITH providers to compare the models and processes used by US

colleagues such as referral assessment processes and care approaches (eg team vs primary nursing vs speciality nurses and speciality teams).

## Relevant abstracts from Medline and Cinahl

Gross ND, McInnes RJA, Hwang PH. *Outpatient intravenous antibiotics for chronic rhinosinusitis*. *Laryngoscope* 2002; 112:1758-61. ★

Peripherally inserted central catheter (PICC) lines have greatly facilitated the use of intravenous antibiotics in outpatient medical practice. Otolaryngologic applications for home intravenous therapy through PICC lines have not been well characterised to date. The purpose of the study is to describe indications and complications related to outpatient intravenous antibiotic therapy in patients with chronic rhinosinusitis.

This retrospective cohort study reviewed the charts of patients with chronic rhinosinusitis who were treated at an academic rhinology practice with outpatient intravenous antibiotics over a 3-year period. During this period 14 patients received, 16 courses of intravenous antibiotic therapy. The average patient age was 51 years (range, 36-74 y). The primary indication for intravenous antibiotic use was the treatment of resistant pathogens (50%). The most common organisms treated were *Staphylococcus epidermidis*, *Staphylococcus aureus*, and *Pseudomonas aeruginosa*. Other indications included gastrointestinal intolerance of oral antibiotics and extra-nasal complications of sinusitis. Eighty-eight percent of patients (14 of 16) were able to complete the entire prescribed course of therapy. Three (19%) catheter-related complications occurred, including thrombophlebitis and deep venous thrombosis. All three complications required removal of the PICC line; one of these patients underwent successful reinsertion of a second catheter and completion of treatment.

PICC line delivery of home intravenous antibiotics can be a well-tolerated adjunct to surgery in the outpatient treatment of chronic rhinosinusitis. Resistant infections, intolerance to oral antimicrobials, and extranasal complications of

sinusitis are indications for PICC line therapy. Catheter-related complications can be significant and must be considered in patient selection.

Laupland KB, Gill MJ, Schenk L, et al. *Outpatient parenteral antibiotic therapy: evolution of the Calgary adult home parenteral therapy program*. Clin Invest Med 2002; 25:185-90. ★

The paper describes the Calgary home parenteral therapy program, which has evolved from a few, small, single-site programs to a multisite, region-wide program that each year treats thousands of patients who require long- and short-term parenteral therapy.

Lazzarini L, Tramarin A, et al. *Three times weekly teicoplanin in the outpatient treatment of acute methicillin resistant staphylococcal osteomyelitis: a pilot study*. J Chemotherapy 2002; 14:71-5.

A pilot study was performed to assess the safety and efficacy of three-times weekly teicoplanin in the treatment of methicillin-resistant (MR) acute staphylococcal osteomyelitis. Ten patients with acute post-traumatic osteomyelitis were enrolled. Pathogens were MRSA (5 patients) and MR coagulase-negative staphylococci (5 patients). After a loading dose of 400 mg twice daily for 3 days, patients were treated with an intravenous dose of 1000 mg on Mondays and Wednesdays and 1200 mg on Fridays. Teicoplanin trough levels were maintained within a 10 - 20 mg/L range. If hardware removal had been possible at enrolment, treatment was carried out for at least 4 weeks. If, on the contrary, hardware removal had not been possible, teicoplanin was administered as suppressive therapy until hardware removal. Treatment was successfully performed in 9 out of 10 patients, and resulted in improvement only in one patient. Side effects were not recorded. Three times weekly teicoplanin seems to be a treatment option for acute MR staphylococcal osteomyelitis. Further studies are warranted in order to better define the role of this new administration schedule in this field.

O'Grady NP, Alexander M, Dellinger EP et al. *Guidelines for the prevention of intravascular catheter-related infections*. Pediatrics 2002; 110(5): Article. No. E51: 1-24. ★ <http://www.pediatrics.org/cgi/content/full/110/5/e51>

These guidelines have been developed for practitioners who insert catheters and for persons responsible for surveillance and control of infections in hospital, outpatient, and home health-care settings. The report was prepared by a multidisciplinary working group comprising members from a range of professional organisations and societies and is intended to replace the Guideline for Prevention of Intravascular Device-Related Infections published in 1996. The guidelines are intended to provide evidence-based recommendations for preventing catheter-related infections. Major areas of emphasis include

- 1) educating and training health-care providers who insert and maintain catheters;
- 2) using maximal sterile barrier precautions during central venous catheter insertion;
- 3) using a 2% chlorhexidine preparation for skin antisepsis;
- 4) avoiding routine replacement of central venous catheters as a strategy to prevent infection; and
- 5) using antiseptic/antibiotic impregnated short-term central venous catheters if the rate of infection is high despite adherence to other strategies (ie, education and training, maximal sterile barrier precautions, and 2% chlorhexidine for skin antisepsis).

These guidelines also identify performance indicators that can be used locally by health-care institutions or organisations to monitor their success in implementing these evidence-based recommendations.

Park AH, Kim H. *Intravenous home hydration in pediatric patients following adenotonsillectomy*. Intern J Pediatr Otorhinolaryngol 2002; 66:17-21. ★

This study was undertaken to determine the feasibility, safety and efficacy of intravenous home hydration for pediatric post-operative adenotonsillectomy patients.

Pediatric patients from a university-based children's hospital were randomised to two groups following adenotonsillectomy - one with (H) and one without postoperative home intravenous hydration (WH). Hydration involved the administration of 25 cm<sup>3</sup>/kg of Lactated Ringer's solution once a day for 3 days via an intravenous catheter by home care nurses.

Three of 22 patients in the (WH) group and none of the 25 patients in the (H) group required an emergency room admission for dehydration. Difficulty

swallowing and activity level were found to be statistically significant ( $P < 0.05$ ).

The hydration group (H) had a greater swallowing difficulty score (1.4) compared with the nonhydration (WH) group (0.06). The (H) group had a lower activity score (0.2) compared with the (WH) group. There was no statistically significant difference in duration of, pain, the severity of pain, days until oral feeds could be taken without difficulty, degree of dysphagia, degree of neck, throat, tongue and ear pain between the two groups ( $P < 0.05$ ). There were no complications associated with intravenous hydration.

This study did not demonstrate an increased efficacy from intravenous hydration based on a number of parameters. Selected patients with a high likelihood to develop dehydration or medically intractable emesis may benefit from intravenous hydration and may avoid emergency room or hospital admission.

Partsch H. *Bed rest versus ambulation in the initial treatment of patients with proximal deep vein thrombosis*. *Curr Opin Pulmon Med* 2002; 8:389-93. ★

The amount of physical activity is neither mentioned in the study protocols nor in the instruction brochures, which are given to the outpatients with venous thromboembolism. In most institutions, the fear of dislodging clots by ambulation is more common than the consideration of thrombus propagation and of recurrence; therefore, bed rest is recommended at least for the initial stage. Two randomised trials have shown that bed rest as a part of the initial treatment of patients with deep vein thrombosis (DVT) is not able to substantially reduce the incidence of pulmonary emboli detected by repeat lung scanning. In one study leg compression and walking exercises reduced edema and pain more rapidly and more effectively than bed rest in patients with proximal DVT. Progression of the thrombus size assessed by an independent Duplex examiner was statistically significantly greater in those patients confined to bed when compared with ambulatory patients with compression therapy. By counteracting against venous stasis, walking exercises and compression therapy have an important impact on the clinical outcome and should therefore be addressed in future studies.

## List of Medline, Cinahl and other relevant published articles

### Allied Health

Frymark T. Speech-language pathologists. *Leading the way with outcomes data*. *Home Healthcare Nurse* 2002; 20:730-3. ★

### Anaphylaxis

MacLaughlin EJ, Fitzpatrick KT, Sbar E, Jewell C. *Anaphylactoid reaction to enoxaparin in a patient with deep vein thrombosis*. *Pharmacotherapy* 2002; 22:1511-5. ★

### Blood Products

Schaefer J. *Advances and dilemmas in recombinant blood products*. *J Infusion Nursing* 2002; 25:305-9. ★

### Carers

Massimo L. *Hospital at home and the role of caregivers*. *Minerva Pediatrica* 2001; 53:161-9. ★

### Chronic Obstructive Pulmonary Disease

Ojoo JC, Moon T, McGlone S et al. *Patients' and carers' preferences in two models of care for acute exacerbations of COPD: results of a randomised controlled trial*. *Thorax* 2002; 57:167-9. ★

Lee DTF, Lee IFK, Mackenzie AE, Ho RNL. *Effects of a care protocol on care outcomes in older nursing home patients with chronic obstructive pulmonary disease*. *J Am Geriatr Soc* 2002; 50:870-6. ★

### Data Collection

Cox M. *Data processing and transmission. The basics*. *Home Healthcare Nurse* 2002; 20:509-13. ★

Narayan M. *Data collection. The basics*. *Home Healthcare Nurse* 2002; 20:503-5. ★

Narayan M. *Data collection. Practical application*. *Home Healthcare Nurse* 2002; 20:506-8. ★

### Elderly Patients

Donovan N. *Providing a home care clinical experience that benefits patients, students and agencies*. *Home Healthcare Nurse* 2002; 20:443-8. ★

Lee DTF, Lee IFK, Mackenzie AE, Ho RNL. *Effects of a care protocol on care outcomes in older nursing home patients with chronic obstructive pulmonary disease*. *J Am Geriatr Soc* 2002; 50:870-6. ★

### Emergency Department

Richardson LD, Asplin BR, Lowe RA. *Emergency department crowding as a health policy issue: Past development, future directions*. *Ann Emerg Med* 2002; 40:388-93. ★

## Heart Failure

Thackray S, Easthaugh J, Freemantle N, et al. *The effectiveness and relative effectiveness of intravenous inotropic drugs acting through the adrenergic pathway in patients with heart failure - a meta-regression analysis.* Eur J Heart Failure 2002; 4: 515-29. ★

## Hydration

Park AH, Kim H. *Intravenous home hydration in pediatric patients following adenotonsillectomy.* Intern J Pediatr Otorhinolaryngol 2002; 66:17-21. ★

## Infections and Antibiotic Therapy

Egerer G, Goldschmidt H, Hensel M, et al. *Continuous infusion of ceftazidime for patients with breast cancer and multiple myeloma receiving high-dose chemotherapy and peripheral blood stem cell transplantation.* Bone Marrow Transplantation 2002; 30:427-31. ★

Gross ND, McInnes RJA, Hwang PH. *Outpatient intravenous antibiotics for chronic rhinosinusitis.* Laryngoscope 2002; 112:1758-61. ★

Laupland KB, Gill MJ, Schenk L, et al. *Outpatient parenteral antibiotic therapy: evolution of the Calgary adult home parenteral therapy program.* Clin Invest Med 2002; 25:185-90. ★

Lazzarini L, Tamarin A, et al. *Three times weekly teicoplanin in the outpatient treatment of acute methicillin resistant staphylococcal osteomyelitis: a pilot study.* J Chemotherapy 2002; 14:71-5.

Osmon DR, Berbari EF. *Outpatient intravenous antimicrobial therapy for the practicing orthopaedic surgeon.* Clinical Orthopaedics & Related Research 2002; 403:80-6. ★

## Infection Control

Centres for Disease Control and Prevention. *Guidelines for the prevention of intravascular catheter-related infections.* MMWR 2002; 51:1-29.

O'Grady NP, Alexander M, Dellinger EP et al. *Guidelines for the prevention of intravascular catheter-related infections.* Pediatrics 2002; 110(5): Article. No. E51:1-24. ★ <http://www.pediatrics.org/cgi/content/full/110/5/e51>

## Line Complications

Owens L. *Reteplase for clearance of occluded venous catheters.* Am J Health-Syst Pharm 2002; 59:1638-40. ★

## Miscellaneous

Erickson J. *Making the admission process more efficient.* Home Healthcare Nurse 2002; 20: 462-5. ★

Goodwin DD, Hanson JC, Berry CP. *The changing face of Canadian home parenteral therapy.* J Infusion Nursing 2002; 25:372-8. ★

Health Insurance Portability and Accountability Act. *Your HIPAA "to do" list.* Home Healthcare Nurse 2002; 20:419-23. ★

Kinsella A. *Predicting home healthcare needs. The next step in patient monitoring.* Home Healthcare Nurse 2002; 20:725-9. ★

Richard AA, Crisler KS. *The process-of-care investigation. The basics.* Home Healthcare Nurse 2002; 20:587-92. ★

## Mobile Chest Drainage

Carroll P. *Mobile chest drainage. Coming soon to a home near you.* Home Healthcare Nurse 2002; 20:434-41. ★

## Nursing

Bosma T L, Jewesson PJ. *An infusion program resource nurse consult service: our experience in a major Canadian teaching hospital.* J Infusion Nursing 2002; 25:310-3. ★

Humphrey CJ. *The current status of home care nursing practice. Part 1: clinical practice under PPS.* Home Healthcare Nurse 2002; 20:677-84. ★

Humphrey CJ. *The current status of home care nursing practice. Part 2: operational trends and future challenges.* Home Healthcare Nurse 2002; 20:741-7. ★

## Patient /Carer Education

Gorski LA. *Effective teaching of home IV therapy.* Home Healthcare Nurse 2002; 20:666-74. ★

## Patient Satisfaction

Ojoo JC, Moon T, McGlone S et al. *Patients' and carers' preferences in two models of care for acute exacerbations of COPD: results of a randomised controlled trial.* Thorax 2002; 57:167-9. ★

## Peripheral Intravenous Cannula

Lenhardt R, Seybold T, Kimberger O, et al. *Local warming and insertion of peripheral venous cannulas: single blinded prospective randomised controlled trial and single blinded randomised crossover trial.* Br Med J 2002; 325:1-4. ★

## Quality and Outcomes

Crisler KS, Richard AA. *Developing and implementing a plan of action to improve care. The basics.* Home Healthcare Nurse 2002; 20:596-602. ★

Crisler KS, Richard AA. *Interpreting outcome reports. The basics.* Home Healthcare Nurse 2002; 20:517-22. ★

Goodfellow AF, Wai AO, Frighetto L et al. *Quality-of-life assessment in an outpatient antibiotic program.* Ann Pharmacother 2002; 36:1851-5. ★

Krulich LH. *A basic and practical overview of the 6 steps of outcome-based quality improvement.* Home Healthcare Nurse 2002; 20:501-2. ★

Krulich LH. *A basic and practical overview of the 6 steps of outcome-based quality improvement. Part 2.* Home Healthcare Nurse 2002; 20:585-6. ★

Krulich LH. *Outcome-based quality improvement (OBQI) staff competency tools.* Home Healthcare Nurse 2002; 20:608-14. ★

Madigan EA. *The scientific dimensions of OASIS for home care outcome measurement.* Home Healthcare Nurse 2002; 20:579-83. ★

Murdock K. *Developing and implementing a plan of action to improve care. Practical application.* Home Healthcare Nurse 2002; 20:603-5. ★

Murdock K. *Interpreting outcome reports. Practical application.* Home Healthcare Nurse 2002; 20: 523-4. ★

Murdock K. *The process-of-care investigation. Practical application.* Home Healthcare Nurse 2002; 20:593-5. ★

Panis LJ, Verheggen FW, Pop P et al. *Assessing inappropriate hospital stay in internal medicine using the Dutch appropriateness evaluation protocol.* Int J Qual Health Care 2002; 14:431-2. ★

Richard AA, Crisler KS. *Selecting target outcomes. the basics.* Home Healthcare Nurse 2002; 20: 525-9. ★

Rodriguez-Vera FJ. *The AEP in the assessment of appropriate hospital stay.* Int J Qual Health Care 2002; 14:429-30. ★

Shaughnessy PW, Hittle DF, Crisler KS, et al. *Improving patient outcomes of home health care: findings from two demonstration trials of outcome-based quality improvement.* J Am Geriatr Soc 2002; 50:1354-64. ★

## Telemedicine and Technology

Freedman DB. *Clinical governance: implications for point-of-care testing.* Ann Clin Biochem 2002; 39(Pt 5): 421-3. ★

Struk C. *The end user of home care computer technology... the clinician.* Home Healthcare Nurse 2002; 20:466-9. ★

## Urinary Catheters

Wilde M. *Understanding urinary catheter problems.* Home Healthcare Nurse 2002; 20:449-55. ★

## Vascular Access Devices

Galloway M. *Using benchmarking data to determine vascular access device selection.* J Infusion Nursing 2002; 25:320-5. ★

## Venous Thrombosis

Gerlach HE, Blattler W. *Introducing controlled outpatient management of deep venous thrombosis: a feasibility study with 827 patients.* [German] Phlebologie 2002; 31: 77-+.

MacLaughlin EJ, Fitzpatrick KT, Sbar E, Jewell C. *Anaphylactoid reaction to enoxaparin in a patient with deep vein thrombosis.* Pharmacotherapy 2002; 22:1511-5. ★

Partsch H. *Bed rest versus ambulation in the initial treatment of patients with proximal deep vein thrombosis.* Curr Opin Pulmon Med 2002; 8: 389-93. ★

Turpie AGG, Chin BSP, Lip GYH. *Venous thromboembolism treatment strategies.* Br Med J 2002; 325:948-50.

## Wound Management

Fosnocht D, Swanson E. *Wound and Skin Infections. Admission and Discharge Decisions in Emergency Medicine.* 2002 L. Frank and K. Jobe: 136-138.

Kinsella A. *Advanced telecare for wound care delivery.* Home Healthcare Nurse 2002; 20:457-61. ★

Ovington L. *The evolution of wound management. Ancient origins and advances of the past 20 years.* Home Healthcare Nurse 2002; 20:652-6. ★

### Disclaimer:

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