THE EFFECT OF MAGNESIUM CITRATE IN THE TREATMENT OF LEG CRAMPS

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Introduction. Leg cramps are a common problem in the elderly. The only treatment of proven effectiveness is quinine, but this has a number of side effects. Magnesium salts have been shown to prevent leg cramps in pregnancy, but no trial evidence for its effectiveness outside this indication is available. The purpose of this study is to test whether magnesium citrate (Mg) is useful as preventative treatment for leg cramps.

Methods. Subjects were recruited by advertisements in local papers. Inclusion criteria were a minimum of 2 leg cramps per week with a stable pattern for at least 3 months. Treatment allocation was randomized double-blind cross-over placebo-controlled and consisted of 300 mg Mg per day and matching placebo (P) for 6 weeks each. Only data from the final 4 weeks of each period were used to allow for run-in/wash-out time. Statistical analysis of differences and totals was by Mann-Whitney U-test.

Results. For the group who started with P (n=29) the median (95% CI) number of cramps was 9 (6,17) on P and 5 (4.8) on Mg. For the group starting with Mg the median number of cramps was 9 (5.13) on Mg and 8 (4.14) on P. There was no significant carry-over effect (p=0.88), but a highly significant time effect (p=0.008). There was a non-significant trend towards less cramps during Mg treatment (p=0.07).

Conclusion. In subjects volunteering for a study of a new leg cramp treatment the number of cramps falls in a time-dependent manner over 12 weeks irrespective of treatment allocation. Over and above this there is a trend towards less cramps during Mg treatment. This should be confirmed in a larger study.

FACTORS ASSOCIATED WITH CLOSTRIDIUM DIFFICILE INFECTION IN A DISTRICT GENERAL HOSPITAL

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Introduction. Clostridium difficile (Cdiff) diarrhoea is an increasing problem in many hospitals. Broad spectrum antibiotics and cross infection are established risk factors. British Thoracic Society guidelines advise Cefuroxime for treatment of severe pneumonia. We have reviewed the factors in our hospital associated with Cdiff infection, particularly antibiotic usage.

Methods. Case notes of hospital inpatients, over 65 years, who had Cdiff toxin requested during a four month period in 1996 were reviewed. Simple demographic data, premorbid state, length of stay, antibiotic use, treatment and outcome were recorded. Cdiff positive and negative patient groups were compared. Data was analysed using Chi-squared.

Results. 76 case notes were available for analysis out of 98 cases identified. There were no significant differences between the groups for age, sex or length of stay. Cefuroxime was the only antibiotic significantly (p<0.05) associated with Cdiff infection. Patients who were Cdiff positive were more likely to die in hospital or to be institutionalised.

Conclusion. Cefuroxime is significantly associated with Cdiff infection and hence a poorer outcome. The use of Cefuroxime in hospital, as a first line treatment for pneumonia, needs to be more closely monitored.

BREAST EXAMINATIONS : ATTITUDES OF PATIENTS AND DOCTORS

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Introduction. The incidence of breast cancer increases with age.

Methodology. 100 elderly female patients (P) and 75 hospital doctors (HD) were interviewed about breast examinations (BE). An audit of 100 case notes was performed.

Results. Some P would feel embarrassed (2), upset (2), reluctant (10), pleased (32) or neutral (54) and none would be offended if asked to undergo a BE. 86 thought a BE important and would give permission for BE. Only 9 P's had ever had a mammogram and 25 would prefer examination by a female doctor. Of the HD interviewed only 5 said they would routinely do a BE on every woman over the age of 50 years, however 57% felt BE's should be a routine part of the physical examination. Some HD's (20%) felt uncomfortable in performing BE's, whilst some (15%) had no confidence in detecting breast lumps. Most HD's (75%) did not think patients were offended by BE's, but 45% would insist on a chaperone. Review of the case notes found 11 P had had a BE documented, although 2 of these were abnormal. Of 10 (P) with bone pain only 1 had a BE, whilst all 4 (P) with weight loss had no BE. None of 5 P's with a past history of breast cancer had a BE.
Conclusions

Older female patients regard BE's as important and would give permission for a BE. Only a minority of doctors routinely do a BE. Doctors need to be encouraged to perform this simple examination.

RISING ACUTE MEDICAL ADMISSIONS
THE POTENTIAL ROLE OF THE GERIATRICIAN


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Introduction

Medical care for elderly patients in Dundee follows a modified age-related model. GPs can refer appropriate patients for admission into the Royal Victoria site. All others are admitted to Ninewells Hospital. With acute admissions rising throughout Scotland, we aimed to identify patients who might be more appropriately cared for by geriatricians.

Methods

For one month, all patients aged 60 and over were reviewed the day after their admission to Ninewells Hospital and were categorised into (A) unstable, requiring tertiary care; (B) stable, single medical pathology; (C) geriatric assessment; and (D) specialist expertise recommended. Hospital records and casenotes were reviewed at 6 months.

Results

426/733 patients (58%) were reviewed. 30% (217/733) were aged 75 and above. The men were younger (median age 72 years vs females, 77 years) 67.4% were GP referrals and 22.3% from '999' calls. Of the 4 categories, (A) 109 patients (26%), (B) 89 patients (21%), (C) 66 patients (15%), (D) 47 patients (11%) were discharged within 24 hours. 27321 (8%) of patients remaining or 1666 (24%) in category C (of which 1/19 (5%) males) were transferred to geriatricians acutely. There was no significant difference in the length of stay between "geriatric assessment" patients admitted to general medical wards and to the geriatric assessment ward in Ninewells but a greater proportion of patients managed by geriatricians were sent home.

Conclusions

There is clear disparity in the distribution of resources despite a significant proportion of acute admissions having problems appropriate for care by geriatricians. Urgent discussion between purchasers and providers is necessary.

SKIIN SURFACE PRESSURE MEASUREMENT DURING LOWER LIMB COMPRESSION WITH PNEUMATIC INTERMITTENT INFLATION LEGGINGS AND GRADUATED ELASTIC STOCKINGS

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Introduction: It is assumed that the skin surface pressures delivered by day-to-day lower limb compression devices used in elderly care approximate to those specified by the manufacturer. However, these assumptions are based on pressure measurements in artificial legs. The aim of this study was to determine whether real lower limb skin surface pressures come within the manufacturers' specified compression pressure ranges with full lower limb intermittent pneumatic compression and graduated elastic stockings.

Methods: Ten healthy subjects (mean age 20.8) were studied. Each subject had flat air-filled pressure transducers attached at 4 medial and 4 lateral sites for skin surface pressure measurement in the distal and proximal calf, and in the distal and proximal thigh of the left leg. Skin surface pressures were measured using an automated device (Talley Pressure Monitor 3®), specifically designed for SSP measurement and calibrated and validated against a mercury sphygmomanometer for accuracy. The average of 10 SSPs was obtained for each of the eight sites in the supine position, first with the pneumatic compression device at 20, 40 and 60 mmHg compression levels (calibrated with a mercury sphygmomanometer), and then with graduated elastic stockings of comparable compression levels, i.e. 20-30 mmHg, 30-40 mmHg, and 40-50 mmHg. The SSP values for each of the 4 lower limb levels in each compression condition were derived by averaging the medial and lateral SSP measurements.

Results: In the intermittent pneumatic compression pressure range of 20-60 mmHg, there was a gradual reduction of SSP from distal calf to proximal thigh, mimicking graduated elastic hosiery. However, there were consistently higher SSPs than specified by the pressure dial on the device at each limb level, most marked in the distal calf, i.e. 40.6 mmHg (2.47 sd) at 20 mmHg, 62.4 mmHg (4.04 sd) at 40 mmHg and 82.9 mmHg (4.82 sd) at 60 mmHg. Conversely, with compression stockings, distal calf SSPs were generally lower than the specified ankle pressure ranges, i.e. 27.8 mmHg (6.82 sd) at 30-40 mmHg and 36.9 mmHg (7.96 sd) at 40-50 mmHg, but fell within the 20-30 mmHg range, i.e. 23.1 mmHg (3.94 sd).

Conclusion: Skin surface pressure in the lower limb is significantly underestimated by intermittent pneumatic compression equipment, and overestimated by graduated compression elastic hosiery.