POOR INHALER AWARENESS IN ELDERLY PATIENTS WITH CHRONIC AIRWAYS LIMITATION (CAL): EFFECT OF ASTHMA-NURSE TUITION

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Introduction

Elderly CAL patients have poor knowledge of inhaled drugs. We aimed to assess inhaler awareness in young (Y) and elderly (E) CALs and effect of nurse tuition in the E.

Methods

46 (21 men) E CALs (70-90 [mean 78] yrs) and 34 (10 men) Y CALs (17-69 [mean 57] yrs), completed a structured questionnaire. The E received up to 15 minutes nurse tuition and repeated the questionnaire (blind) at one month.

Results

Initial knowledge was poor: many E not knowing (a) purpose of their inhaler (steroid-66%, ipratropium-60%, beta-agonist-46%); (b) differences between drugs-65% (c) which drugs to take for acute wheeze-37%. The only inter-group difference in knowledge was that more E took inhaled steroid regularly (98% vs 85%; Chi squared = 4.2, p = 0.04). Initial knowledge in E was unrelated to prior tuition but understanding of drug actions related to perceived acute inhaler effect for beta-agonist (rho = 0.3, p = 0.02) and ipratropium (rho = 0.6, p = 0.01) but not steroid. In E, tuition was associated with improved knowledge in 3 areas (baseline vs one month-# patients not aware, Signed rank test): purpose of inhaled steroid (66% vs 36%, p = 0.01); purpose of beta-agonist (46% vs 24%, p = 0.019); drugs to use when wheezy (37% vs 15%, p = 0.03).

Conclusions

(1) Inhaler knowledge is poor in CALs with likely effect on disease control, but without age differences. (2) Nurse tuition improves knowledge at one month in E. (3) More work is needed to assess optimum tuition frequency.

NEBULISER USE IN NURSING HOMES

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Introduction

Older people often experience practical problems using a nebuliser at home (Teale et al. Age & Ageing 1996; 24:276-7) but little is known about the problems or extent of nebuliser use within nursing homes (NH).

Methods

We contacted all of the NH in the city by telephone and the matron/office in charge was interviewed using a structured questionnaire.

Results

There were 53 nursing homes providing a total of 1981 places and all agreed to be questioned. 26 homes (49%) were currently using a nebuliser (or had done so within the last year) and a further 2 homes had machines but had not used them. Of the 42 machines identified 27 (64%) had never been serviced, 10 (24%) were serviced annually, 3 (7%) were serviced every six months and 2 having only recently been obtained had not required servicing. 33 (78%) machines were used at least daily, 5 (12%) were used on an as required basis and 4 had never been used. Only 1 NH had received formal instruction in nebuliser use (via a G.P.), 3 said they had received no instruction at all and in 24 homes staff had some experience of nebuliser use in previous hospital employment. Nine of the nursing homes had any specific written guidelines on what to do if the resident deteriorated or failed to gain benefit from the nebuliser.

Residents using a nebuliser were not under regular medical review in 14 (50%) of the 28 NH, in the remaining 14 (50%) homes review was from the G.P. alone.

Conclusions

Nebuliser use is common in nursing homes. Machines need regular maintenance and this is not happening. All residents using a nebuliser routinely ought to be under regular medical review. Staff supervising residents with nebulisers would benefit from formal instruction in their use. Practical guidelines on nebuliser maintenance and clinical use would be welcomed.

COCKCROFT AND GAULT FORMULA FOR ESTIMATION OF CREATININE CLEARANCE: SHOULD WE ADOPT IT?

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Introduction

Creatinine clearance deteriorates as we get older, as a result of functional and parenchymal renal changes. However the serum creatinine may be within the normal range in the elderly as a result of decreased muscle mass. Creatinine clearance is usually determined by biochemical analysis of a 24 hr urine collection and serum creatinine measurement. This is seen as the 'gold standard'. The Cockcroft and Gault formula was devised to enable the creatinine clearance to be estimated without the need for a urine collection. This method is based on a serum creatinine measurement. Evidence suggests that there is good correlation between the measured and calculated value in patients with normal serum urea and creatinine.

Methods

Fifteen elderly inpatients with a steady state serum creatinine greater than 180 mmol/L had a 24 hr creatinine clearance measure. This was correlated against a calculated value.

Results

We found that there was a good correlation between the calculated and measured values: r = 0.78 (p < 0.05)

Conclusion

The Cockcroft and Gault formula is a quick and reliable bedside guide to creatinine clearance in elderly patients with biochemical abnormal renal function and from the findings in this study we would endorse its use. This technique avoids the difficulty of urine collection from elderly subjects on acute medical wards.