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) difference between drugs-63% (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^2=4.2, p=0.04). Initial knowledge in E was unrelated to prior tuition but awareness 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 little 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/officer 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 7 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. None 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 parenctiymal 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 24hr creatinine clearance measure. This was correlated against a calculated value.

Results
We found that there was a good correlation between the measured and calculated value: 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 normal 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.