235 The CF couch potato! Habitual physical activity in an adult CF population

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Background: Physical activity has been shown as beneficial to CF. Patients health and quality of life are positively affected by physical training (Wilkes 2009). Increased habitual physical activity (HPA) has been shown to reduce the speed of lung function decline. Physical inactivity significantly contributes to exercise intolerance and skeletal muscle weakness in CF (Troosters 2009).
Objectives: To compare the HPA of stable adult outpatient CF patients with recognised ranges in other chronic diseases.
Method: 10 patients wore the Sensewear® electronic activity monitors. Demographic and anthropometric data were collected.
Results: 10 patients (8 male) participated with mean (SD) age, FEV_1%, BMI and FFMI of 28.3 years (8.1), 54.2% (19.8), 22.1 kg/m^2 (2.0) and 17.9 kg/m^2 (1.8) respectively. Patients wore the Sensewear® for a mean (SD) 6.5 days (4.4) and the mean (SD) percentage time on body was 91.6% (8.9). Their mean (SD) shuttle-walk test was 491.4 m (202.4). Their mean (SD) Metabolic Equivalents (METS) activity during the monitored period was 1.7 (0.18) with patients spending a mean (SD) time of 200 minutes (71) engaged in activity greater than 3 METS. The mean (SD) number of steps taken per day was 4552 (2475).
Conclusion: The mean METS per day equates to very low activity levels such as knitting with patients only spending around 3 hours doing activities equating to light activity such as playing pool which is considered inadequate for cardiovascular conditioning (Jette 1990). The average steps per day are below those considered normal for people living with chronic disability/disease (range 7000–9000) (Tudor-Locke 2011).

236 The once-daily tacrolimus extended-release formulation provides similar drug exposure in non-CF and CF lung transplant recipients when compared to the conventional twice-daily formulation

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Non-compliance with immunosuppressive drug therapy is a significant risk factor for graft loss. Administration of the once-daily tacrolimus (tac) extended-release formulation (ADV) instead of the conventional twice-daily formulation (PRO) might improve compliance. The objectives of our study were to obtain pharmacokinetic (PK) data in stable lung transplant (LTx) recipients converted from PRO to ADV and to compare PK data obtained with ADV in non-CF and CF LTx recipients. Nineteen patients (9 CF) were studied. PRO PK profiles were collected on 3 consecutive days. Patients were then switched to ADV on a 1:1.1 mg basis and ADV PK profiles were collected at steady-state on 3 consecutive days. Tac exposure over 24 hrs was computed as the area under the concentration-time curve (AUC_{0-24h}) for ADV and as the AUC_{0-12h} x 2 for PRO. The AUC was determined by Bayesian estimation, using a one-compartment PK model with first-order elimination and the absorption phase described by a double gamma distribution. Mean tac exposure was compared between subjects and formulations using 2-way ANOVA. In non-CF LTx recipients the mean PRO and ADV dose was 2.3±1.5 mg BID and 5.0±3.1 mg QD; there was no difference in mean tac exposure between PRO and ADV (244±56 vs. 246±76 h.mg/L, p = 0.722). In CF LTx recipients the mean PRO and ADV dose was 3.3±1.6 mg BID and 7.2±3.8 mg QD; mean tac exposure with PRO was marginally superior to ADV (287±60 vs 275±37 h.mg/L, p = 0.019) with this conversion ratio. PRO and ADV provided similar mean tac exposures in non-CF and CF LTx recipients. These encouraging results should be confirmed in a larger patient sample.
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237 Thrush – a lesser spotted resident in the CF service?

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Aim: Patients with CF are at increased risk of *Candida* infection due to long term antibiotics, diabetes and inhaled/oral steroids. Due to the relatively benign nature of orogenital Candidal infection it is often not seen as a priority by CF teams and often not discussed but it may cause significant morbidity to CF patients.
Method: 136 questionnaires were given out to sequential patients attending the AWACFC over a three month period. These were completed anonymously and explored how frequently patients suffered from symptoms consistent with oral or genital thrush, whether they received treatment from the AWACFC for thrush and if they were asked about symptoms routinely and if they felt comfortable discussing symptoms with the team.
Results: 110 (57 females) questionnaires were returned (81% response rate). 62 (35 females) of the 110 (56%) reported having had recurrent symptoms of oral *Candida*. 57 (35 females) of the 110 (52%) reported recurrent symptoms of genital *Candida*. Only 44% of patients with oral symptoms and 28% with symptoms of genital *Candida* ever had treatment from the AWACFC. Others purchased over the counter treatments or sought advice from their General Practitioner. 40 of the 110 patients (36%) ever recalled being asked by a member of the team about symptoms of thrush. Only 18 (16%) felt uncomfortable discussing symptoms with a member of the AWACFC.
Conclusion: Recurrent symptoms of orogenital *Candida* infection appeared to be common in our patients yet most patients self medicated or sought treatment from their GP. As a team we do not regularly enquire about symptoms despite most of our patients being comfortable discussing symptoms with us.

238 Medication reconciliation in Wales – a problem shared

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Aim: Cystic Fibrosis Trust Standards of Care Guidelines promote the provision of "prescription monitoring and medication review services" within specialist centres [1]. We reviewed the effectiveness of medication reconciliation taking place amongst patients registered at the AWACFC in 2013.
Method: For each patient registered at the AWACFC the most recent medication script issued by the GP was compared with contemporaneous medication lists from AWACFC medical notes. This allowed discrepancies to be identified between prescribing of 16 key CF medications at the interface of care between AWACFC and GP.
Results: Of the 226 patients attending the AWACFC 216 patients had prescription records available from the GP. Of these 216 patients (118 male) the mean age, FEV_1% and BMI were 27.9 years (SD 9.4), 64.8% (SD 24.1) and 23.1 kg/m^2 (SD 4.5) respectively. 165 of the 216 (76%) patients were found to have at least one medication reconciliation error on their prescription, including omission, commission, dosing and frequency errors. The most accurately reconciled medication was Creon 159/168 (95%). Hypertonic saline was found to have the highest rate of non-reconciliation with 25% of patients originally prescribed the medication not receiving the medication as intended.
Conclusion: With increasingly complex and expensive treatment regimes adding to treatment burden and affecting adherence it is clear that medicine reconciliation service provision needs to be more thoroughly addressed. Many records were found to have prescribing discrepencies and we need to identify the reasons for these and take steps to remedy them and improve communication between primary and secondary care.