Blackpool Teaching Hospitals NHS Foundation Trust

Staff Publications

March 2019

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Articles published by members of staff from Blackpool Teaching Hospitals NHS Foundation Trust and indexed between January and March 2019

Individual and monitoring centre influences upon anticoagulation control of AF patients on warfarin: A longitudinal multi-centre UK-based study

Abohelaika S, Wynne H, Avery P, Robinson B, **Jones L**, Tait C, Dickinson B, Salisbury J, Nightingale J, Green L, Kamali F

Eur J Haematol. 2018 Oct;101(4):486-495.

OBJECTIVES: Time within therapeutic INR range (TTR) predicts benefits/risk of warfarin therapy. Identification of individual- and centre-related factors that influence TTR, and addressing them to improve anticoagulation control, are important. This study examined the impact of individual and centre-related factors upon long-term anticoagulation control in atrial fibrillation patients in seven UK-based monitoring services.

RESULTS: TTR increased with increasing age, peaking around 77% at 70-75 years, and then declined, was lower in females than males, and in dependent home-monitored patients than those attending clinic ($P < 0.0001$). TTR, number of dose changes and INR monitoring events and the probability of TTR ≤ 65%, differed across the centres ($P < 0.0001$).

CONCLUSIONS: Although all the participating centres ostensively followed a standard dosing algorithm, our results indicate that variations in practice do occur between different monitoring sites. We suggest feedback on TTR for individual monitoring sites gauged against the average values reported by others would empower the individual centres to improve quality outcomes of anticoagulation therapy by identifying and adjusting contributory factors within their management system.

Laryngeal ulceration in Behçet's disease: the role of centres of excellence in the UK

Ghazal Asswad R, **Harrison A**, Hans PS, Buzatu C

J Surg Case Rep. 2019 Feb 8;2019(2)

Case report: We present the case of a 31-year-old Caucasian male who had a prolonged journey from first presentation until diagnosis of BD. For 11 years, he presented symptoms affecting the oral cavity and oropharynx, with worsening odynophagia and dysphagia and ultimately, development of stridor. Flexible laryngoscopy showed significant laryngopharyngeal ulceration and scarring. Treatment was with colchicine, corticosteroids and azathioprine and supervised by one of three newly established BD Centres of Excellence in the UK.

Discussion: Although uncommon, ENT manifestations in patients with BD should be taken into consideration to allow for early recognition and treatment of what can become a life-threatening condition. In such situations, early referral to a BD Centre of Excellence is essential to provide confirmation of diagnosis and supervision of treatment.

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Oral melatonin for non-respiratory sleep disturbance in children with neurodisabilities: systematic review and meta-analyses

Parker A, Beresford B, Dawson V, Elphick H, Fairhurst C, Hewitt C, Scantlebury A, Spiers G, **Thomas M**, Wright K, Mcdaid C

Dev Med Child Neurol. 2019 Feb 1.

AIM: To evaluate the effectiveness of pharmacological interventions for managing non-respiratory sleep disturbances in children with neurodisabilities.

METHOD: We performed a systematic review and meta-analyses of randomized controlled trials (RCTs). We searched 16 databases, grey literature, and reference lists of included papers up to February 2017. Data were extracted and assessed for quality by two researchers (B.B., C.M., G.S., A.S., A.P.).

RESULTS: Thirteen trials were included, all evaluating oral melatonin. All except one were at high or unclear risk of bias. There was a statistically significant increase in diary -reported total sleep time for melatonin compared with placebo (pooled mean difference 29.6min, 95% confidence interval [CI] 6.9-52.4, p=0.01). Statistical heterogeneity was high (97%). For the single RCT with low risk of bias, the unadjusted mean difference in total sleep time was 13.2 minutes (95% CI -13.3 to 39.7) favouring melatonin, while the mean difference adjusted for baseline total sleep time was statistically significant (22.4min, 95% CI 0.5-44.3, p=0.04). Adverse event profile suggested that melatonin was well-tolerated.

INTERPRETATION: There is a paucity of evidence on managing sleep disturbances in children with neurodisabilities, and it is mostly of limited scope and poor quality. There is evidence of the benefit and safety of melatonin compared with placebo, although the extent of this benefit is unclear.

WHAT THIS PAPER ADDS: Melatonin for the management of non-respiratory sleep disturbances in children with neurodisabilities was well tolerated with minimal adverse effects. The extent of benefit and which children might benefit most from melatonin use is uncertain. Benefit may be greatest in those with autism spectrum disorder; however, this finding should be interpreted with caution.

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Opportunities for antimicrobial stewardship in patients with acute bacterial skin and skin structure infections who are unsuitable for beta-lactam antibiotics: a multicenter prospective observational study

Sandoe JAT, Saeed K, **Guleri A**, Hand KS, Dillon R, Allen M, Mayes A, Glen F, Gonzalez-Ruiz A

Ther Adv Infect Dis. 2019 Feb 4;6

Purpose: The objective of this prospective, observational study was to describe the treatment, severity assessment and healthcare resources required for management of patients with acute bacterial skin and skin structure infections who were unsuitable for beta-lactam antibiotic treatments.

Methods: Patients were enrolled across five secondary care National Health Service hospitals. Eligible patients had a diagnosis of acute bacterial skin and skin structure infection and were considered unsuitable for beta-lactam antibiotics (e.g. confirmed/suspected methicillin-resistant *Staphylococcus aureus*, beta-lactam allergy). Data regarding diagnosis, severity of the infection, antibiotic treatment and patient management were collected.

Results: 145 patients with acute bacterial skin and skin structure infection were included; 79% (n = 115) patients received greater than two antibiotic regimens; median length of the first antibiotic regimen was 2 days (interquartile range of 1-5); median time to switch from intravenous to oral antibiotics was 4 days (interquartile range of 3-8, n = 72/107); 25% (n = 10/40) patients with Eron class 1 infection had systemic inflammatory response syndrome, suggesting they were misclassified. A higher proportion of patients with systemic inflammatory response syndrome received treatment in an inpatient setting, and their length of stay was prolonged in comparison with patients without systemic inflammatory response syndrome.

Conclusion: There exists an urgent need for more focused antimicrobial stewardship strategies and tools for standardised clinical assessment of acute bacterial skin and skin structure infection severity in patients who are unsuitable for beta-lactam antibiotics. This will lead to optimised antimicrobial treatment strategies and ensure effective healthcare resource utilisation.

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