finding is in agreement with other studies that have reported *in vivo* O₂ content of the microvasculature. bEnd.3 cells cultured under 5 kPa also exhibited lower intracellular glutathione content compared to cells cultured under 18 kPa O₂ (20.6 vs 29.9 mmol/mg protein, $n=4$, $p=0.003$). Furthermore, bEnd.3 cells cultured under 5 kPa O₂ exhibited greater sensitivity to OGD-induced cell death, with increased ratio of dead to live cells seen under 2 hour OGD (0.42 vs 0.05, $n=3$, $p=0.0002$).

Conclusions The majority of cell culture studies have conducted experiments under hyperoxia. The present study highlights the importance of conducting cell culture studies under physiological O₂ levels, as demonstrated by the different phenotype resulted from long-term culture under physiological O₂ levels.

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18

AN ASSESSMENT OF THE SMOKING CESSATION POLICY IN AN NHS TRUST

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Introduction Smoking is the second biggest risk factor for premature death in the UK, and it is a significant risk factor for many chronic illnesses. Approximately 25% of secondary care patients smoke, and so treating tobacco dependence would create an opportunity to improve the health of these patients. Referral to stop smoking services is the optimum way to induce smoking cessation- smokers who are referred to these services are four times more likely to quit. NICE guidelines set out the standard of smoking cessation support in secondary care. This audit aimed to assess the compliance of an NHS Trust's smoking cessation policy with these NICE guidelines.

Subjects and methods The NICE baseline assessment tool was used to assess the compliance of the Trust's smoking cessation policy with the NICE guidelines. To evaluate the implementation of the Trust's policy in clinical practice, snapshot audits of the medical notes of current inpatients and outpatients were undertaken. Medical notes were collected from at least 2 medical specialties and 2 surgical specialties. The notes were assessed for documented smoking status in all patients, and offer of nicotine-replacement therapy (NRT) and referral to a stop smoking service in current smokers.

Results The Trust's smoking cessation policy was partially compliant with the NICE guidelines; significant gaps in the Trust's policy included smoking cessation in outpatients and the training of all staff to deliver stop smoking advice. 14/27 (51.9%) of outpatients and 54/80 (67.5%) of inpatients had smoking status documented in their notes. Documentation varied widely across the different specialties, ranging from 0% of Neurology and ENT outpatients, to 100% of Respiratory inpatients. 7/19 (36.8%) of current smokers had a documented offer of NRT, while 4/19 (21.1%) of current smokers had a documented offer of referral to a stop smoking service. Of

the 3 current smokers in the Respiratory ward, none were offered NRT and 1 was offered a referral to a stop smoking service.

Conclusions While the Trust's smoking cessation policy partially complied with the NICE guidelines, implementation of the Trust policy was insufficient. There were low rates of smoking status documentation in many specialties, and so healthcare staff should be encouraged to ask about smoking status, even if it may not seem relevant to the patient's presenting complaint. Few smokers were offered referral to stop smoking services. Greater awareness of these services is needed, so that smokers receive appropriate smoking cessation support, ensuring that opportunities to improve the health of the nation are not missed.

19

THE BENEFITS OF AN INTEGRATED EYE CLINIC LIAISON OFFICER IN IMPROVING PATIENT OUTCOMES IN OPHTHALMOLOGY

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Introduction The loss of sight can have a profound impact on a patient's independence and well-being. Giving patients the devastating news that they are losing their sight is very challenging and when receiving information, a patient often requires considerable support and time. Eye Clinic Liaison officers (ECLOs) are essential in providing patients, their families, and carers with practical and emotional support to help understand their diagnosis. They can help patients not only adapt to living with sight loss, but also to ensure they do not become isolated and retain their independence. ECLOs provide a vital role in bridging the gap between health and social care services, such as fall prevention, job retention, education and social services, enabling early intervention. The service demonstrates how health and social care can work together effectively and this supports the NHS outcomes framework. At the West Suffolk NHS Foundation Trust we have an integrated ECLO. This has proven to reduce DNA's, reduce clinician time per patient, help patient compliance with treatment, and streamline the process for sight registrations. The Royal college of Ophthalmologists recognised the importance of the role of ECLOs in 2007, in its guidelines to commissioners and clinicians, which recommended the use of ECLO's as part of Age-Related macular degeneration services.

Methods In order to investigate the aims and objectives, evidence was gathered from Ophthalmologists, Patients and other eye clinic staff, with satisfaction surveys filled by those whom accessed or referred patients to the ECLO service.

Results Surveys were collated and feedback was positive. Having an integrated ECLO has meant timely referrals to appropriate services, providing access to support, and also services such as low visual aids and mental health. Direct access to mental health services reduces the need for GP appointments, meaning that those who require help receive it sooner. Early falls prevention and referrals into the community team have reduced the number of falls for patients with visual impairment, reducing hospital admissions. 95% of surveys received from staff, working with ECLOs, said that it improved the patients experience and reduced time spent in

the clinic. Patients felt happier that they were given time to discuss their eye conditions and have access to support. Other staff working within the Eye clinic also felt that they further understood sight loss after receiving visual awareness training. This training was also delivered to other professionals, including occupational therapists, within the hospital who have been better equipped to assist their visual impaired patients.

Conclusions The numbers of patients living with sight loss is gradually increasing the demand on ophthalmic services. Ophthalmic services continue to have the second highest number of outpatient attendances of any speciality, placing enormous pressure on ophthalmic staff to diagnose and treat patients. Having an integrated ECLO at the West Suffolk hospital has proved invaluable. The ECLO service is a good example of how integrated secondary care and social care improve patient outcomes. Evidence has shown that the service is well used and the ECLO service is a vital part of any Eye clinic.

20 REGISTRY REPORT OF THE PREVALENCE OF ECG ABNORMALITIES AND THEIR RELATION TO PATIENT CHARACTERISTICS IN AN ASYMPTOMATIC POPULATION

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Background Cardiovascular disease is the leading cause of morbidity and mortality in developed countries. Many patients do not experience symptoms before a first major cardiovascular event. Resting electrocardiogram (ECG) may help identify asymptomatic individuals with a high risk of cardiovascular disease. We sought to determine the prevalence of ECG abnormalities in an apparently symptom-free adult population within a prospective registry.

Methods The registry consisted of 4739 consecutive apparently healthy individuals (age 62.8 ± 6.2 (SD) years; 54% female), referred by their General Practitioners between 2009 and 2013. Patient demographics, and clinical data were obtained, alongside blood tests and a resting ECG.

Results ECG abnormalities were present in 1509 (31.8%) subjects and were commoner with increasing age ($F=0.161$, $p=0.01$), systolic ($F=0.134$, $p=0.01$) and diastolic ($F=0.44$, $p=0.01$) blood pressure and waist circumference ($F=0.53$, $p=0.01$). Left ventricular hypertrophy (LVH) was the most common abnormality ($n=281$) and was positively associated with systolic ($F=0.12$, $p=0.01$) and diastolic blood pressure ($F=0.99$, $p=0.01$), and male gender ($X^2=60.5$, $p<0.01$). All ECG abnormalities (except for LVH) were associated with an increasing age, while right bundle branch block ($F=0.041$, $p=0.01$) and atrial fibrillation ($n=29$; $F=0.036$, $p=0.05$) were associated with the presence of diabetes mellitus ($n=211$). Only left bundle branch block ($n=50$) was associated with angina ($F=0.05$, $p=0.01$).

Conclusions Unrecognised cardiac abnormalities are common in middle-aged men and women with no overt symptoms. ECG offers the potential to identify these abnormalities and provide earlier intervention and treatment, and possibly improve cardiovascular outcome.

21 LATE DIAGNOSIS OF ABERRANT ORIGIN OF RIGHT PULMONARY ARTERY FROM ASCENDING AORTA AND INCREASED MORBIDITY

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Introduction The aberrant origin of a single pulmonary artery is a rare cardiovascular anomaly. So far 131 cases have been reported in English literature. It's a result of the failure of migration of embryonic branch of a pulmonary artery to reach the pulmonary trunk during embryological period. The aberrant origin of right pulmonary artery from ascending aorta (AORPA) can be associated with patent ductus arteriosus (PDA), atrial septal defect, ventricular septal defect and aortic arch isthmus hypoplasia, whereas, the aberrant left pulmonary artery is associated with the Tetralogy of Fallot. Early and rapid development of pulmonary hypertension is a hallmark of the underlying pathology in untreated cases and the one-year survival is approximately 30% in the absence of any surgical intervention. Hence, early diagnosis and surgical management is mandatory to optimise the outcome.

Subjects and methods We report a case of a 46 years old Caucasian female who presented with progressive breathlessness and productive cough and was investigated to delineate the presence of AORPA and its cardio-pulmonary associations with the help of a follow up CT scan, bronchoscopy and a cardiac MRI (CMR).

The patient had a surgical repair of PDA at the age of 3 and remained generally fit and well afterwards however, could never take part in the stamina sports and long distance running due to shortness of breath. In last decade, she had multiple episodes of recurrent respiratory tract infections and intermittent and relapsing allergic bronchopulmonary aspergillosis (ABPA). Her routine bloods showed eosinophilia and the lung function tests demonstrated a restrictive lung disease with FEV1 of 58% and vital capacity of 69% (predicted). She also had an asthma quality life questionnaire that scored 5.3. She had a HRCT chest seven years ago that showed right middle and lower lobe changes in line with the diagnosis of ABPA, AORPA with the signs of pulmonary hypertension, a slit like

Abstract 21 Figure 1 First row from left to right CXR – prominent hilar vessels; CT lung window – Infective changes; CT mediastinal window – Abnormal origin of right pulmonary artery from aorta with calcification; Cardiac MRI T1 image – dilated aorta and AORPA. Second Row from left to right 3D and MIP reformatting – showing this anomaly with right sided pulmonary hyperaemia; Bronchoscopy images – mucous secretions and bronchomalacia