**Equivalence Application to NES**

XXXXXX,, Depatartmemt, Board, email

1. **Current role:**

Higher Specialist Clinical Physiologist in the Respiratory Function laboratory, [XXXX Hospital Board] I lead the Pulmonary Function and Cardio-Pulmonary Exercise Testing (CPET) service. I also deputise for the lead of the Sleep Physiology service.

I organise the daily workload of the lab and assign daily tests and tasks to junior staff. I perform all diagnostic tests in both the Respiratory and Sleep laboratories on a regular basis. I interpret pulmonary function full, CPET, limited and full Polysomnography (PSG) investigations. I attend regular meetings with Respiratory Consultants and multi-disciplinary teams to present clinical opinion of our diagnostic tests. As part of the sleep service I am also involved in treating patients with of all forms of sleep-disordered breathing through non-invasive ventilation and CPAP establishment, and associated follow-up care.

I undertake teaching and training roles within the hospital, including junior physiologists, junior medical staff, Registrars, nursing staff and ventilator support workers. In the sleep laboratory, I perform regular non-invasive ventilation and basic sleep monitoring training to ventilatory support workers, carers, AHPs and parents. In the respiratory function lab, I teach Junior Doctors and Registrars on all aspects of Pulmonary Physiology. I am a visiting lecturer at XXXX University and deliver regular Pulmonary Function Interpretation lectures as part of the Respiratory Plenary sessions for undergraduate medical students.

I lead the development and quality improvement of the services offered by our laboratory. I am research active, both in-terms of my own CPD and involvement in multi-disciplinary teams and projects across the service.

1. **Generic Healthcare Science Experience**

I perform resting and stress ECGs routinely as part of CPET. I also perform clinical interpretation of these tests. If I have a complex case referred for exercise testing I will arrange to have a cardiac physiologist present to assist me in testing. I will regularly discuss patient cases with my cardiology and imaging colleagues and ask them to summarise results from echocardiography and cardiac MRIs.

Gastrointestinal physiology was lacking in my hospital therefore we have taken up this role, which has means I have many years’ experience in 24 hour gastro-oesophageal pH testing and interpretation and more recently 24 hour Impedance pH testing.

Analysis of EEG is a large part of the work I do in the sleep laboratory. I work alongside my Neuro physiologists when patients are being tested for Narcolepsy as I will perform and analyse the overnight Polysomnography study and then work alongside EEG to perform the multiple sleep latency test.

I perform sweat tests and have worked alongside colleagues from Biochemistry to introduce the ‘Wescor’ method of sweat collection, which we had to change from the ‘Gibson & Cooke’ method. This involved visiting the biochemistry lab and learning their sweat analysis techniques. I regularly visit the cardiac laboratory to discuss exercise test results on patients. Due to the number of different pieces of equipment I have used, I am regularly in contact with the Bioengineering department regarding calibration of our pulmonary function equipment and purchase of new equipment. I work closely with bio-engineering with regards service and maintenance of patient ventilators.

I have experience of working both in PICU and NICU, which has mainly involved performing sleep studies in these settings. One of our main links with PICU is through non-invasive ventilation (NIV). I regularly review patients who have been set up on NIV on PICU to ensure they have the optimal ventilation settings and mask fitting.

1. **Leadership and organisation experience:**

I have developed my leadership skills, learning the theory and knowledge behind management, presentation, organisation and conflict resolution. This began when I started my role as a Specialist Physiologist in XXX Hospital [year]. My development includes the supervision of junior staff and organisation of the laboratory. I have helped and mentored a colleague to gain her ARTP professional exams. In 2012, I undertook an NHS Education for Scotland leadership and management 4-day course and a ‘Train the Trainer’ course. Both have learning outcomes aligned with the STP curricula. I have developed skills and responsibility for equipment procurement and budget management.

I am heavily involved in the continued professional development of all our staff in the lab, helping them to establish training plans and pathways as part of their professional development plan.

My leadership role includes responsibly for the overall running of our unit and accountability for the standards of performance of my team. I had the lead role establishing the first ARTP Accredited Paediatric Spirometry course, aimed at Healthcare professionals - for which I was Course Director in November 2013. The course is now run annually. This endeavour has yielded valuable leadership, communication and planning experience.

1. **Healthcare science divisional experience and overarching theme experience:**

I perform a full range of advanced diagnostic tests: ranging from spirometry, lung volumes via body plethysmograph and Helium dilution, alveolar gas transfer, allergy response tests including skin prick and Broncho-provocation tests using both pharmacological and physical stimulus. I have experience in performing and interpreting highly specialised investigations like CPET and full Polysomnography. I have worked within two disciplines: respiratory and sleep physiology. I am an RCCP registered Physiologist and have gained qualifications including ARTP part 1 & 2 and an international sleep exam, which allowed me to be on the Register for Polysomnographic technicians (RPSGT). This is an American-based qualification, desirable for anyone involved in performing and interpreting sleep studies. At XXX Hospital, I also perform and analyse 24-hour Gastro-Oesophageal pH studies – a task normally carried out by Gastrointestinal Physiologists which allows me to further widen my skillset and given Physiology. I established a pH-Impedance monitoring service as part of our GI work. I reviewed current research and helped design an interpretative strategy for these tests.

1. **Research Experience**

I am active in local research projects. I am lead author in an article published in the ARTP journal ‘Inspire’, June 2011 *“The effect of increasing apparatus deadspace distal to the pneumotach on spirometric measures made with Jaeger MasterScreen and Jaeger MasterScope devices.”*  I was invited speaker at the 2012 European Respiratory Society Congress (ERS) in Vienna. Title: “Inter-Variation in Dual Oximetry for Polysomnography”. I presented a poster at the 2013 ARTP conference. Title: “Are 2 nights of Oximetry Required for OSA Screening in Paediatrics?” I have had an abstract accepted as lead author to this year’s ERS congress. Title: *“Assessment of Aerobic Capacity in Cystic Fibrosis and Asthmatic Children*”. I intend to submit this work as first author in a peer reviewed respiratory journal.

1. **Specialty experience from within the HCS theme**

I perform calibration and quality control, according to international guidelines and I also set up quality control programmes within the laboratory. I clinically interpret Spirometry, bronchodilator response, gas transfer, physical and pharmacological challenge testing, non-invasive respiratory muscle function, overnight oximetry and limited multi-channel sleep studies. This has involved a wide range of patient groups through my work in adults and paediatrics. I have experience in setting up and monitoring CPAP therapy in adults and children on NIV. This has also involved assisting in setting up invasive ventilation in selected patients and also helping the patients with complex sleep disorders like Central Congenital Hypoventilation syndrome make the transition from invasive to Non-Invasive Ventilation.

I perform capillary blood gas sampling and analysis of results. I perform hypoxic challenge testing in children and administering adequate supplemental oxygen therapy. I clinically interpret CPET in a wide range of complex patients including respiratory, congenital cardiac patients and rheumatology. I currently lead the [REGIONAL] Paediatric CPET service. I have regular meetings with the lead respiratory medical consultant to discuss and review exercise results.

I organise and lead an international paediatric exercise testing video conference which is organised by myself every three months. This is attended by Professors, Clinical Scientists, physiologists, physiotherapists and Respiratory consultants. I am also one of three, along with two medical Respiratory consultants, who organise a [NHS Board] CPET meeting every three months. We have developed a teaching curriculum for attendees who are less experienced and we also discuss current protocols, quality control, research and difficult cases.

Within my professional organisation – the ARTP – I am Vice Chair of the Paediatric Working Group, on the educational board as a Paediatric Representative, and Deputy Editor of the ARTP education journal, ‘Inspire’.