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Technical

As Specialist Ophthalmic Science Practitioner for the Sheffield Ocular Oncology service, I am required to provide precise standardised ultrasound measurements of tumours and present results and provide written reports at weekly MDT meeting of which I am a core member.

I also lead the ultrasound service and have responsibility for providing a comprehensive range of ultrasonic diagnostic investigations:

- B Scan (10MHz, 20MHz)
- Standardised 8 MHz A Scan
- Biometric A Scan
- Ultrasound Bio microscopy

Leading the ultrasound service involves providing staff training to specific competences, writing of protocols, participating in quality assurance, procuring evaluating and maintaining equipment and making sure probes are decontaminated.

I adhere to local STH trust and national professional guidelines with regard to:

- Health and safety
- Clinical protocols
- Data protection
- Consent
- Patient Confidentiality
- Diversity

I also perform a wide spectrum of other ophthalmic diagnostic tests and clinical imaging. Understanding fully all test procedures is essential to providing accurate repeatable and reliable diagnostic test results.

I have been the diagnostic imaging lead for several clinical trials including; Direct, Adrem, Macugen and Atacicept as well as participating in others. This involves adhering to strict study protocols, downloading and sending of data to the trial centre and keeping a database up to date. All research is conducted in accordance with trust ethical committee guidelines. I understand the need for a methodical, consistent, organised approach to all research and its value.

I am also involved in the Diabetic screening and grading program as a grader I perform full disease grading, determining sub-type and level of retinopathy or maculopathy present, refer for review or management. By doing this I have learnt the importance of promoting health education to the public and the importance of early detection of ocular and systemic disease.

Technical

I have worked in the field of ophthalmic imaging for 10 years, at two NHS hospital trusts. Initially I was employed within the Ophthalmic Imaging and Angiography unit at the Royal Hallamshire Hospital, Sheffield, and this is where most of my basic training took place, over a four and a half year period.

Since this time I have undertaken further training in advanced ophthalmic imaging procedures such as standardised ultra-sound, fundus auto fluorescence and micropertometry and I am currently learning the technique of Ultra sound biomicroscopy (UBM). I also undertake diabetic retinopathy full disease grading, determining subtype and level of retinopathy or maculopathy present, and referring directly to hospital eye care services for review, further investigation or management.

I am one of three ophthalmic science staff trained to perform imaging which has direct contact with the eye, such as gonio photography.

I adhere to trust protocols regarding Infection Control, Health and Safety, Data Protection, Diversity, Patient Confidentiality and Consent.

I undertake my clinical duties with regard to the Skills for Health – Ophthalmic National Occupational Standards 1-16.

I currently perform the following clinical duties:

- Stereo fundus photography to international protocol.
- Fundus Fluorescein Angiography (FFA) to international protocols.
- Indocyanine green angiography.
- Optical Coherence Tomography (OCT) to international protocols.
- Corneal OCT.
- Anterior segment angiography and imaging.
- Gonio photography and insertion of contact lenses for investigation.
- External clinical photography of the face and eyes.
- Standardised ultra sound and ultra sound of the eye and orbit.
- Diabetic retinal image grading.
- Measuring visual acuity when required.
- Administration of topical eye medications for the purpose of examination or investigation.
- Taking a clinical history prior to angiography and confirmation of informed consent.
- IV cannulation and preparation of contrast media for ocular angiography.
- Undertaking focimetry to ensure accurate confocal scanning laser ophthalmoscopy (HRT).
- Assessing central visual field with micro perimetry.
- Theatre photography.
- Paediatric photography

Technical/ Clinical

My main responsibility within the department is carrying out a broad range of diagnostic and imaging procedures as well as patient care. As an Ophthalmic Science Practitioner I perform an extensive range of ophthalmic angiography and diagnostic imaging techniques, to investigate diseases affecting the eye and visual system. Considerable understanding of these imaging and test modalities is vital in producing accurate and reliable diagnostic test results. I have had to acquire a detailed understanding of the anatomy, physiology and pathology of the eye and supporting structures as well as systemic diseases, such as diabetes. I have taken on extended practices in IV cannulation to help my work efficiency and improve the continuity of care to patients.

I'm actively involved in research projects and clinical trials, for which I have been required to produce evidence of training and evaluation of clinical practice which enabled me to receive certification to contribute to the research studies.

I am a member of the Ophthalmic Imaging Association and have been since 2006 and have attended their annual scientific conferences and training workshops. On a more regular basis I attend postgraduate teaching sessions for senior and junior medical staff, and departmental teaching sessions, within which I have prepared and delivered case presentations.

I have recently attended a workshop organized by Novartis Pharmaceuticals at the Royal Halamshire Hospital, for those ophthalmic technicians working in hospitals within South Yorkshire; the theme of which was looking at current and emerging imaging technologies.

More recently I attended the International diagnostic standardized ultrasound course and workshop in Rome, Italy, to further develop my ultrasound skills and understanding, so that I follow a standardized technique to which can be applied in the oncology clinics.

I currently perform the following duties:

- Perform retinal imaging and image analysis using current standard techniques
- Perform fluorescein fundus angiography – film or electronic image recording, image processing and analysis
- Undertake indocyanine green chorio/retinal angiography - image processing and analysis determining treatment area
- Slit lamp biomicroscopy & imaging of anterior segment of the eye utilising topical stains as appropriate
- Clinical imaging of the external eye and Ocular adnexae
- Perform retinal tomography, volumetric analysis of the optic nerve head to screen for glaucomatous neuropathy and topography of the macula to evaluate diabetic maculopathy
- Undertake optical coherence tomography of the neuro-sensory retina, optic nerve and retinal nerve fibre layer
- Operating theatre imaging and examination of patients under anaesthetic
- Snellen visual acuity measurement
- Auto refraction
- Focimetry
- Standardised Ultra-sound B scan A scan

All areas of my practice have been assessed against National Occupational Standards for Ophthalmic & Vision Science.

Clinical

I use my knowledge skills and experience in my specialist area of ophthalmic ultrasound to:

- Navigate precisely around the eye and orbit by identifying landmarks such as the optic nerve and orbital muscles.
- Use internationally recognised transverse and longitudinal classification to clearly label scans with probe orientation.
- Use kinetic echography for example to differentiate between post vitreous, retinal and choroidal detachments.
- Choose correct modality of ultrasound to image pathology or anatomy.
- Know the limitations of a procedure be able to adapt and modify investigation, for example changing velocity when imaging patients with oil or gas.
- Use standardised A scan to determine tumour sub type by looking at internal reflectivity and circulation.
- Use Biometric A scan to measure axial length anterior chamber depth and lens position.
- Be able to operate equipment safely and accurately check probe parameters are correctly set, calibrate A scan correctly using tissue sensitivity model, take appropriate action in the case of malfunction.

I use my knowledge, skills and experience in my general clinical practise to:

- Confirm authorised request and patient consent prior to commencing procedures.
- Limit risks of infection to self and others through use of appropriate infection control procedures.
- Identify possible precautions which need to be taken or contra-indications to test procedures by obtaining relevant history from patient and patient's records.
- Confirm patient's understanding and requirements for compliance for the procedure.
- Position and align patient correctly for image capture, ensuring patient comfort.
- Use independent methods to establish and confirm patient identity prior to diagnostic test or documentation.
- Maintain the safety of patients, relatives and colleagues by adhering to appropriate policies and legislation.

My general clinical practice includes:

- Fluorescein (retinal and iris) / ICG angiography.
- Slit lamp bio microscopy and imaging of the eye and ocular adnexae.
- Gonioscopy.
- External clinical imaging.
- Retinal tomography of nerve head and retina.
- Ocular coherence tomography (anterior and posterior).
- Microperimetry (threshold and fixation).
- Operating theatre imaging.
- Fundus imaging (colour, red free, infra red, auto fluo).
- Stereo imaging.
- IV cannulation.
- Paediatric photography and imaging.
- Administration of topical medications and stains to facilitate examination (patient specific directive only).
- Diabetic Retinal Image Grading.
- Analysis of angiographic, OCT and HRT finding.

SAMPLE

Clinical

In carrying out the above procedures one must demonstrate a detailed knowledge of ophthalmic basic sciences, including anatomy and physiology of the eye and visual system, systemic disease, optics, pharmacology and ophthalmic pathology.

In order to perform investigations most effectively it is important to be aware of how conditions present and understand the patient signs and symptomatology.

I often take a brief ophthalmic history prior to performing any procedures.

This serves to confirm that the test that has been requested is appropriate, will assist me in ensuring that abnormal pathology is demonstrated and will ensure that the resulting images are useful to the clinician in their decision making process.

For example I would try to ensure that when undertaking OCT, a line scan intersects the scotoma that a patient may describe; this would hopefully demonstrate a cause of this visual symptom.

Sometimes investigations are performed to document existing pathology.

In the case of a choroidal naevus, I would ensure that the best possible baseline image is taken of the area of interest, as the aim of the photography in this case will be to provide clinicians with an image in which to refer for many years. I would take additional landmark photographs if needed.

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Communication

Within my duties I liaise and work with a diverse range of health care professionals, including clinicians, nurses, management staff, patients and careers, working to continuously improve and evolve my communication skills to enable me to fulfill my duties more effectively.

Attend departmental meeting discussing operational issues and trainee's progress.

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Communication

I liaise with a range of healthcare professional in my daily duties from Managers, Ophthalmic Consultants and Nurses to Reception and Clerical staff. This communication takes various forms and can be electronic, handwritten or face to face.

I deal with patients who have recently diagnosed sight threatening conditions and this demands sensitivity, empathy and tact. I also occasionally use persuasive skills during some of the more unpleasant investigations I perform.

- I am currently undergoing training in the use of the hospital PAS system.
- I enter data onto the Ophthalmic Imaging databases daily.
- I am a member of the ocular oncology MDT team.
- I attend post graduate teaching sessions for medical staff.
- I am currently a Committee Member of the Association of Ophthalmic Science Practitioners and attend meetings when required.
- I supervise and mentor junior staff.

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Communication

- Attend departmental, trust, regional or national meetings discussing issues of the ophthalmic imaging service.
- Provide verbal and written reports on investigations and imaging to medical staff at MDT.
- Present lectures, including the use of visual aids such as power point.
- Accurately input data into ophthalmic imaging databases.
- Facilitate the maintenance and repair of broken equipment regularly having to liaise with all the major ophthalmic manufacturers.

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Managing

In my role as deputy head of department I oversee staffing levels, schedules and the organisation of mandatory training. In conjunction with the head of department, I am involved with all staff training and development and the recruitment process. I also deputise for the head of department during times of absence.

I have responsibility for the effective use of financial resources in my own area of the department and asset management writing tender documents for ultrasound equipment. I am also responsible for ordering stock from supplies dept and pharmacy.

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Managerial/Leadership

In my current role as an Ophthalmic Science Practitioner I am not directly responsible for other member of staff, all though I do provide vital support in training and mentoring for new members of staff providing advice and guidance on a daily basis. Working and helping new members of staff is something that I enjoy and it challenges me and help's me to evaluate my own practices. I have taken part in a mentorship workshop through the hospital to help me improve the level of support I can provide to trainees and even existing members of staff. Within my working environment I am responsible for efficient and effective management of the physical resources and be aware of the financial implications.

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Management

In 2004 I had the opportunity to establish a new ophthalmic imaging and angiography service for the Doncaster, Bassetlaw and Mexborough hospital sites. This service was previously provided by medical staff and the trust wanted to find a cost effective way to provide a more comprehensive service.

Setting up a service from scratch was a huge learning experience and I had to develop skills in organisation, management and administration that my previous positions had not needed. I was responsible for the introduction of a split clinic which provided appointment slots for investigations but also allowed patients to be seen on an ad hoc basis. I was responsible for development, planning and audit of the service.

In my current position I am responsible for the smooth running of the department and the supervision of staff when the Service Manager and Deputy Manager are not available.

I have secured a place on the Health and Social Care Leadership MSc that is delivered by Sheffield Hallam University.

The course starts in September 2009.

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Teaching

I have contributed to AOSP/OIA ophthalmic workshops and regional meeting running demonstrations on ultrasound and OCT.

I also have experience of presenting lectures to my peers. In 2004 I presented a lecture at the OIA conference on the topic of cannulation and again in 2006 on ultrasound. Since then, I have been invited to present lectures at the Royal College of Ophthalmologists Annual Congress and St Anne's College, Oxford. Most recently I have taught on the Ophthalmic Science and Technology foundation course at Nottingham Trent University.

I also give guidance and mentorship to student OSP's.

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Teaching and Training

In 2006 I returned to the Royal Hallamshire Hospital as a lead specialist for the Sheffield DES in ophthalmic imaging and training matters. This role requires me to provide technical support and training in non mydriatic fundus photography to optometrists who are involved in the Sheffield Diabetic Eye Screening Programme.

I am responsible for the supervision of student OSPs and provide targeted learning outcome based training to the less experienced members of the Ophthalmic Angiography team.

Additionally I have been asked by Pfizer UK to provide guidance on their behalf to ophthalmic imaging units who are currently undertaking the Modified 7-Standard Field Colour Fundus Photography and Fluorescein Angiography Procedure certification as part of the DEGAS study.

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Teaching

I take an active approach to my professional and personal development. I attend trust mandatory training sessions and thrive on any opportunity I am able to get to learn and improve my knowledge and skill's.

Attend post graduate teaching sessions for senior and junior medical staff.

Attended and participated in departmental teaching sessions were I have written and delivered case presentations.

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