Satisfying NICE – A Sonographer’s Experience of a Streamlined Approach to Becoming Proficient in Ultrasound Guided Biopsy of the Head and Neck

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The presentation of a neck lump is a diagnostic conundrum. While the majority of the differential diagnoses are benign, the overriding concern of patients and clinicians is to exclude malignancy. NICE guidelines recommend the consideration of ultrasound guided fine needle aspiration (FNA) cytology or core biopsy for patients with a neck lump suspected of being cancer of the upper aerodigestive tract. Successful sonographer led neck lump clinics are being established throughout the UK but to date, there is no UK training criteria aimed specifically at sonographers wishing to undertake interventional procedures. However, recent recommendations published by the Royal College of Radiologists (RCR) included guidance primarily aimed at medical and surgical specialities in the training of ultrasound guided head and neck interventional procedures.

This poster details an ‘in house’ training programme established in Morriston Hospital, Swansea, for a sonographer with experience in head and neck ultrasound, wishing to undertake fine needle aspiration (FNA) in the head and neck.

The programme was streamlined, focusing on reflective practice and multiple work based assessments performed at regular intervals.

Audit of FNA diagnostic success rate during the direct supervision stage of training initially revealed an overall 68% success rate. Further analysis of results revealed high inadequate rates in submandibular glands (SMG) and thyroid as demonstrated in the bar chart below:

Our explanation for this finding is that:
• Low numbers of SMG and thyroid FNA’s may have skewed results.
• SMG biopsies are technically more difficult, particularly superior and anterior SMG space.
• We have previously found our cytologists frequently report thyroid FNA as inadequate. (46% in previous radiological practice)

Reflection of practice identified possible ways of improving FNA success rate as demonstrated below:

FNA success rate was re-audited after multiple DOPS which showed an overall increase to 75%.

This demonstrated improvement however, targeted DOPS at specific areas have so far, been limited due to low numbers.

Future Considerations and Learning Points
• This is a reproducible, realistic training programme based on multiple regular assessments with emphasis on reflective practice and audit as a way to ensure competency.
• Our ‘in house’ training programme was established prior to the publication of the third edition of the Royal College of Radiologists (RCR)document ‘Ultrasound training recommendations for medical and surgical specialities’, but included many aspects of the recommended training.
• Future accepted inadequacy rate may need to be reduced to <15% to be in line with the RCR recommendations.
• Training commenced in February 2016, anticipated independent practice will commence in January 2018.
• This is the first training programme of its kind in Swansea, and possibly Wales.
• Open and ongoing communication with pathologists, radiologists and surgeons is essential when establishing a sonographer led service of this kind.

References
1. NICE Guideline (NG288), ‘Cancer of the upper aerodigestive tract: assessment and management in people of 16 years and over’, Feb 16
2. The Morriston Head and Neck Ultrasound Workshop www.headandneckultrasound.co.uk
3. The Royal College of Radiologists, ‘Ultrasound training recommendations for medical and surgical specialities’, BFCR(17)3
4. The Royal College of Radiologists, Workplace Based Assessment, www.rcr.ac.uk

• Sonographer attended the Morriston Head and Neck Ultrasound Workshop prior to commencement of training.
• A clinical workbook was used to record all training.
• Relevant previous experience in head and neck ultrasound was documented in the workbook.
• Sonographer regularly attends the head and neck cancer multidisciplinary team meeting.
• Pathway was based on multiple assessments similar to the ‘mini-DOPS’ tool used by the RCR.
• Expected FNA success rate was set at 70% and audited throughout the training. (success = adequate and diagnostic sample)
• Assessments were performed by two radiologists.
• A static image of the needle located within the mass was always captured and recorded.

Below: The RCR Mini-Dops Tool Used as a Template in our Regular Assessments

4. Points at End of Session (DOPS).