**Audit on Structured Reporting of Superficial Soft Tissue Masses on Ultrasonography in Relation to Guiding Clinical Management**

**Descriptor:**

Audit on structured reporting of superficial soft tissue masses on ultrasonography focusing on the adequacy of lesion and management documentation to facilitate subsequent clinical management

**Background:**

Ultrasound is the appropriate first-line modality for imaging superficial or palpable soft tissue mass by the American College of Radiology Appropriateness criteria1. It allows real-time, radiation-free, and cost-effective assessment of superficial soft tissue lesions1,2,3,4.

Ultrasound is considered the most appropriate initial triage modality for accessible tumors into benign, equivocal, or suspicious categories 2,3,4. Its reproducibility and reliability depend on appropriate documentation. A clearly written examination report is part of the mandatory technical standards 2,3,4.

To maintain the reporting standard to guide clinical management, the Society of Radiologists in Ultrasound consisting of musculoskeletal radiologists, oncologic orthopedic surgeons, and pathologists published a Consensus Conference Statement (2022) on the standards for reporting superficial soft tissue mass on ultrasonography. It is in accordance with those published in the British Medical Ultrasound Society (2021) and the European Society of Skeletal Radiology (ESSR) (2015).

When the ultrasound appearance is typical and there are no worrisome clinical features, no further evaluation or follow-up other than periodic self-monitoring is necessary 2,3,4. On the contrary, when there are equivocal or suspicious imaging findings, further imaging or referral is necessary2,3.

## The Cycle

**The standard:**

1. The anatomical location in the body is reported2,3,4.

2. The location in tissue (e.g. epidermal/ dermal/ subcutaneous/ intramuscular) is reported2,3,4.

3. The composition (e.g. solid or cystic) of the lesion is reported2,3,4.

4. The size in three dimensions is reported2,3,4.

5. Any important anatomical structure being involved is reported2,4.

6. The echogenicity of the lesion is being reported2,3,4.

7. The margin of the lesion is being reported2,3,4.

8. The sound attenuation of the lesion is being reported4.

9. The vascularity of the lesion is being reported2,3,4.

10. The report should also contain a defined recommendation for further care for equivocal or suspicious cases2,3,4. If the examination is performed by sonographers or other non-medical professionals, a radiologist's opinion should be sought and documented to ensure that advice is appropriate and a named radiologist is identified for further discussion.

**Target:**

Ultrasound reports for superficial soft tissue mass should be collected and reviewed. All cases performed during the preceding six months, or the most recent 100 consecutive cases (whichever number is greater). Cases with no identifiable lesion should be excluded.

## Assess local practice

**Indicators:**

The percentage of ultrasound reports which adhere to each of the standards.

**Data items to be collected:**

1. Is the anatomical location in the body reported?

2. Is the location in tissue (e.g. epidermal/ dermal/ subcutaneous/ intramuscular) reported?

3. Is the composition (e.g. solid or cystic) of the lesion reported?

4. Is the size in three-dimension reported?

5. Is involved important anatomical structure being reported?

6. Is echogenicity of the lesion is being reported?

7. Is the margin of the lesion is being reported?

8. Is the sound attenuation of the lesion is being reported?

9. Is the vascularity of the lesion is being reported?

10. Does the report contain a defined recommendation for further care for equivocal or suspicious cases?

**Suggested number:**

Ultrasound reports for superficial soft tissue mass should be collected and reviewed. All cases performed during the preceding six months, or the most recent 100 consecutive cases (whichever number is greater). Cases with no identifiable lesion should be excluded.

**Suggestions for change if target not met:**

1. Publicise the standards for ultrasound superficial soft tissue mass reporting, through in-person departmental radiology meetings and dissemination of written material to radiologists and sonographers.

2. Create a structured report template for use during electronic report transcription, in order to improve standardization of reporting items.

3. Re-audit six months after the intervention, to assess for improvement in practice. Continue the audit spiral, to ensure sustained compliance with the standards.

**Resources:**

1. Radiology information system (RIS) to review administrative details and reports.

2. Picture archiving computer system (PACS) to review saved ultrasound images.

3. Statistical computer software, such as Microsoft Excel, for recording and analysing data.

[**usg\_soft\_tissue\_mass\_reporting\_template\_12.7.2022.pdf**](https://www.rcr.ac.uk/sites/default/files/audit_template/usg_soft_tissue_mass_reporting_template_12.7.2022.pdf)PDF - 434.36 KB

**References:**

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