Abdominal Ultrasound
Chapter 9

REPORTING AND DOCUMENTATION

Niko Mayr

Reporting and Documentation

WRITING A GOOD ULTRASOUND REPORT

There are **five main principles** for writing a good ultrasound report.

1. Structure

A good report starts with a structured description of the organ systems and their pathologies. It ends with a short conclusion pulling together the relevant information and bringing the report to a well structured end.

2. Algorithm

It is important that the report always follows the same sequence as the algorithm in which the examination was performed.

For instance, if the examination started with the right liver lobe, then moved to the left liver lobe, gallbladder, common bile duct, right kidney, left kidney, spleen, pancreas, retroperitoneum, and gastrointestinal tract, then the report should follow the same algorithm—starting with the left liver lobe and ending with the gastrointestinal tract.

The same algorithm should be followed for every abdominal ultrasound.

3. Thoroughness

If pathology is identified it can either be described at the top of the examination report, or at the point in the algorithm where the pathological organ system is discussed in the examiner's algorithm.

The report should be completed using short, meaningful sentences, rather than long sentence blocks, so as to avoid misunderstandings or misinterpretation.

Once the pathology has been completely described, the report should continue with the rest of the algorithm.

If a radiology report is well written, the listener should be able to close their eyes and fully picture the imaging results.

4. Wrapping up

The text of an examination report may be long, especially when multiple pathologies are reported.

Therefore, the report should include a final conclusion stating only the significant pathologies in short sentences or bullet points, starting with the most severe pathology first.

A good report is accurate, concise, relevant to the clinical question, and can be clearly understood.

5. KISS

Remember the KISS principle: **keep it short and simple.**

DANGER
Avoid long descriptions of normal findings—this is tiresome for the clinician.
Avoid repetitions—this prolongs the report.
Avoid unnecessary words or abbreviations—these prolong the report and can cause confusion.
Avoid double negatives—this can produce a false conception of diagnosis when the report is read.

Reporting and Documentation

DOCUMENTING YOUR IMAGES— WHAT IS IMPORTANT?

The documentation of an ultrasound examination is closely connected to the algorithm used for examination.

Always follow the same algorithm

Since ultrasound examinations should always follow the same algorithm, the documentation of the ultrasound images should always display the same angles and follow the same organ system sequence.

This is important to ensure reproducibility.

When examining an organ it is sufficient to document one picture in long section and one in cross section.

The size of a pathology should be documented by measuring in two image planes (ideally 90° to each other).

Always document vascularization with a color Doppler image when possible.

Do not exaggerate

Do not exaggerate with the images of normal structures.

For example, it is not important to document the size of every gallstone in an almost completely filled gall bladder.

If you find a gallstone in the gallbladder, for instance, then document it once, and document the central biliary branching as well as the common bile duct, just to be sure there is no complicating bile duct obstruction.

Document only what is important

Nowadays, data storage is no longer a problem with the state of the art PACS system, which has more or less unlimited space.

Compared with CT scan studies, which can take up a lot of storage space in the PACS system, the storage space required for ultrasound pictures is small. Numbers count, though, so only document what is important.

If the images are not digitally stored on your ultrasound machine, but are instead produced as hard copy printouts, it is more cost effective to keep the documented pictures to a minimum by only printing images showing variants and pathology.