



I'm not robot



Continue

Ultrasound abdomen report sample

RADIOLOGY-ON-DEMAND® Absolute leader in provision of radiology services viatele radiology. Do you work off campus? Read about our remote access options The reporting roles for sonographers in Australasia vary considerably. A large number of sonographers already routinely produce formal reports, while others are moving into clinical ultrasound roles where reporting is expected. This article summarizes the best practices in reporting ultrasound examinations based on international literature and deals with important topics including report structure, clinical content, style and language. Numerous examples and sample phrases are provided and common pitfalls are discussed. Ongoing advances in ultrasound technology combined with the wide availability of ultrasound and its excellent level of safety have resulted in increased clinical benefit of ultrasound technology across all medical specialties and a dramatic increase in clinical demand for ultrasound1. In this changing healthcare environment, sonographers have long been recognized as experts in ultrasound imaging and given considerable professional respect, autonomy and responsibility.2 The high diagnostic accuracy of experienced sonographers (90-99%) has been shown in a number of studies across all subspecialties.3-11 For this reason, sonographers are now increasingly expected not only to perform ultrasound examinations, but to provide a diagnostic interpretation2, 12 and prepare formal written reports.2, 13, 14 While some countries, such as the UNITED Kingdom, have a long tradition of rutanegraph practice that includes the provision of a formal report13 , 15, in Australia and New Zealand , the practice of sonograph reporting varies considerably between individual sonographers and between different departments.16 Although professional organisations such as the Australasian Society for Ultrasound in Medicine (ASUM) and the Australasian Sonographer's Association (ASA) encourage professional progression of sonographers,2, 17 formal stratification of the ultrasonic profession to minimally competent sonographers vs. advanced or specialized sonographers is yet to occur.14, 18 As a result, the Australasian sonograph society consists of a heavily heterogeneous cohort of practitioners , some of which practice at the lowest required level and do not participate in reporting, while others practice at a very high level and formally report all their ultrasound examinations. A survey conducted by the New Zealand branch of ASUM in July 2011 showed that 48% of sonographers already prepared formal reports and 20% of sonographers routinely prepared formal reports that would not be seen by a radiologist before the report is available to the referring clinicians. In fact, reporting responsibility for sonographers has been recognised in New Zealand employment contracts for a number of years under the title of reporting sonograph , specialist sonographer or clinical specialist As the profession of sonography moves into the future, it will become increasingly important for sonographers to acquire skilled reporting skills. The purpose of this article is to provide a detailed overview of the best practices in formal reporting of ultrasound examinations supported by a comprehensive literature review. A wide range of health practitioners who perform ultrasound examinations are involved in the provision of a diagnostic report. These include sonographers, radiologists and point-of-care practitioners (emergency physicians, general practitioners, junior specialists, midwives, nurse practitioners, physiotherapists and other health professionals trained in ultrasound).13, 22, 23 The ability to produce quality reports that are accurate, clinically relevant and composed in a clear style is an acquired skill24 that requires familiarity with current reporting standards, clinical experience, mentoring of senior experienced colleagues, practice, peer review and audit.23, 25 Special teaching in formal report writing, supervised practice and auditing should be included in the training of the sonograph. Academic and professional institutions providing ultrasound education programs must ensure that formal written reporting is incorporated into academic curricula.26, 27 The Central Queensland University already includes written reporting in the master's curriculum (email from Dr Aamer Aziz, CQ University, September 2017)28 while the University of Auckland plans to introduce it in the future (email from Associate Professor Jenny Sim, September 2017). Monash University, the University of South Australia and the Queensland University of Technology do not intend to address short-term curricula reporting (email from Paul Lombardo, Course Convent Master of Medical Ultrasound, September 2017, email from Associate Professor Kerry Thoires, September 2017, and email from Chris Edwards, Course Coordinator Medical Ultrasound). There is good agreement in the literature on the structure of an ultrasound report.13, 22, 23, 25, 29-31 In general, an ultrasound report should contain the following sections: (1) Department (2) Patient identification, demography, date, recipient, supplier details (3) Indications: history and clinical information (4) Technique and procedural description (when required) (5) Results (a) Specified results (b) Normal and abnormal observations (c) Diagnostic comments (6) Impression/Conclusion (7) Names of individuals participating in the study (8) Inclusion of reference standards in footnotes (where necessary) The title of the examination should clearly identify the type and scope of the examination (including laterality). Abdominal ultrasound examinationAn ultrasound examination of the groinTargeted hepatobiliary ultrasound , portable examination in the ICU term 'scan' should be avoided because the assessment of a patient with ultrasound often goes beyond a simple scanning procedure. Unlike other radiology An ultrasound examination involves important elements of clinical interaction between the sonographer and the patient such as history-taking, observation, palpation, dynamic assessment using various maneuvers, sonopalpation, and assessment in different body positions. It's a comprehensive investigation , not a scan. It is important that the report is correctly identified by the patient's full name, date of birth and any of the following: address, national health identifier, patient clinic identifier, clinic presence code or other similar identifier.30 Date and time (if appropriate) for the examination should be clearly noted. The sonographer should ensure that the rapporteur and the recipients are acknowledged and that there is a procedure for the recipients to receive the report, whether in electronic or paper-copied form. For external reports, the name and contact details of the establishment should be clearly stated. The patient's history and clinical information may come from a number of sources including: history and clinical information provided by the rapporteur; history and clinical information from other medical records. Data provided by the patient to the sonographer during the examination. clinical observations made by the sonographer, and clinical tests carried out at the time of the investigation. The patient's relevant clinical history should be copied from the referral and included in the report. Many patients present with exhaustive medical histories including multiple co-morbidities, serial examinations, complex interventions, detailed management plans and extensive medication regimens. It may not be practical (or desirable) to include all this information in the body of the report.32 In these cases, the sonographer should exercise sound clinical assessment and select the clinical information specifically relevant to the ultrasound examination and the clinical issue. A sonographer working in regional or tertiary centres can also obtain valuable medical history from other sources, including electronic medical records (admission and discharge summaries, clinic letters, surgical reports, laboratory tests, previous imaging) and paper notes. Access to medical records may become more widely available in the near future as more patients will opt for cloud-based storage records. To encourage sonographs to access all available clinical information at the time of the ultrasound examination, some departments have codified such practices in their ultrasonic protocol manuals.33Prior to commence ultrasound examination, the sonograph should:Review the referral letterEVan relevant history from the patientReview all relevant medical records includingLaboratory findingsPrevious imaging results and PACS images (if necessary)Letters ClinicDischarge summaries other relevant medical records available Sonographer should elicit additional relevant information from the patient. Patient the complaint may have changed, or the patient may disclose hitherto undisclosed clinical information that may be helpful in assessing the patient and interpreting the examination. When appropriate, the sonographer should also assess the patient clinically before commencing the examination of ultrasound.34 Visual assessment and palpation of specific areas of interest may provide significant clinical clues to otherwise ambiguous ultrasound appearances with wide range of differentials. For example, superficial masses can be clinically assessed for parameters such as anatomical placement, size, shape, number, firmness, compressibility, fluctuation, smooth or irregular boundaries, associated skin changes, discoloration, skin man, heat, duration, edema, pain or tenderness with and without palpation, discharge, mobility, skin retraction, puckering, dimpling, scarring and other features. If the sonographer engages the patient in the conduct of clinical tests or maneuvers such as during musculoskeletal ultrasound examinations, the tests and their results should be noted: The patient experiences pain and movement restriction with arm abduction beyond 45 degrees. All relevant observations should be noted and included in the report and source of the information allowed.30 The introduction of procedural description and scanning techniques is not necessary for most routine examinations such as abdominal or small-parts ultrasound, but may be helpful for specialized examinations such as transvaginal ultrasound, some vascular examinations, contrast-enhanced ultrasound, bed drainage marking and others.35 Transabdominal and transvaginal examinations performed with the patient's consent. Contrast-enhanced ultrasound was performed with definity® perflutren microspheres (number IV bolus injections: X, total volume of contrast: Xml). High resolution ultrasound assessment of cranial sutures was performed. The dominant ankle-brachial pressure index (ABPI) was 1.0 bilateral. The patient was subjected to a 5-min walking challenge on a treadmill set at 10 degrees slope and 3.5 km/h speed. The typical report should present the results in a logical sequence in the order in which the examination was conducted or in the order of clinical priority. For extensive structured studies, the listing of specific bodies and places of investigation helps to clearly communicate to the Rapporteur what has been and what has not been examined (Figure 1). Example of a specified reporting template for a normal ultrasound examination in the upper abdomen. For targeted examinations, a brief description may be more appropriate: Proper pleural effusion appears easily (not septated) and susceptible to percutaneous bed drainage. A suitable location was marked on the patient's skin with a permanent marker. [report close] The report should specify and describe normal and abnormal observations and offer relevant interpretative comments. All deviations should be qualified by its exact anatomical imaging properties and measurements.13, 22, 30, 31Segment 8 of the liver contains an irregular thick-walled collection 4.5 x 3.5 x 2.8 cm in size containing liquid-level particle content. The clinical history and imaging findings are consistent with a liver abscess. Obvious abnormalities with classic and pathonomy appearance can be referred to directly and do not require a long technical description.36 The right ovary contains a 4.5 cm simple cyst. (Not: The ovary contains a unilocular, round, thin-walled, eco-choic, fluid-filled, avascular structure with distal acoustic enhancement, consistent with a simple cyst.) Several gallstones were noted that range in size from 3 to 6 mm. (Not: The gallbladder contains several highly echogenic, rounded, mobile foci with posterior acoustic shading characteristic of gallstones, measuring 3–6 mm in size.) Unforeseen results should be recognised37 and ups. For example, the temporary discovery of a multilocular solid-cystic mass in a post-menopausal woman presenting to an upper abdominal ultrasound, warrants extending the examination to include a detailed transabdominal and transvaginal scan of the pelvis. Normal anatomical variants should be reported even if they are of no clinical significance at the time of the examination. Some variants (such as uterine anatomical variants or venous duplication) may become clinically relevant in the future. Femoral vein duplication was noted. This is a common normal anatomical variant. Uterus: size: 7.2 x 4.2 x 5.0, volume: 79 ccs (normal) orientation: anteverted morphology: subseptate If the examination was prolonged or reduced in scope, the reasons for this should be recognized and justified.13 Cervix: not investigated (term pregnancy) Ultrasound functions of the liver are compatible with cirrhosis. The examination was extended to include Doppler's assessment of the mesenteric, portal and hepatic vasculature. The results are in line with a right testicular neoplasm. The examination was prolonged to assess the spermatic cord, regional lymph nodes and kidneys. I have informed Mrs Smith of the benefits of performing transvaginal ultrasound to assess endometrial thickness, but she declined. Where measurements are provided, it is important to ensure that the measuring units are used consistently. For example, an obstetric report with a variety of measurements should not mix measurements in centimeters and millimeters. The sonographer should consider rounding measurements to a realistic degree of accuracy dictated by the given clinical scenario, not necessarily in the same format as those provided on the ultrasonic system. For larger structures such as organ size measurements or the mid-trimester fetal biometrics, rounding to the nearest millimeter is suitable; However, for finer structures (nuchal translucency, bile duct, etc.), rounding should be done to the nearest one tenth of a millimetre. Fetal biometrics:BPD = 73 mm HC 271 mm AC = 254 mm FL = 55 mmEFW = 1383 g ±15%, 45th percentile From the clinical point of view, it is useful to identify whether the measurement is normal or abnormal because the referring clinician may not have a working knowledge of the reference standard.25, 38Umbilical Artery Pulsatility Index = 0.95 (normal) Although a reference diagram is embedded in the report, indicating whether a measurement is normal or abnormal in some cases. For example, if the fetal Middle Cerebral Artery Pulsatility Index is above the 95th percentile on a reference chart, it may appear to be outside the normal limits; However, the measurement is defined only as abnormal if it is below the 5th percentile.39 If comparison is made with previous studies, the type of studies and their dates should be noted.30Comparison was made with CT dated dd/mm/yyyy. The small indeterminate lesion noted in segment 7 represents a simple cyst measuring 6 mm in diameter. Direct comparison is especially important in cases of monitoring where the sonographer examines the patient for the presence of interval change. The presence or absence of change should be clearly indicated.40, 41 The previously noted small echogenic liver lesion remains unchanged when compared to previous ultrasound performed 6 and 18 months ago. The previously listed 4.5 cm AAA remains unchanged. Routine monitoring in 12 months has been arranged according to the department guideline. Conversely, it may be necessary to recognize the absence of studies for comparison, especially if clinicians request a repeated examination at another institution and previous imaging records are not available. Previous ultrasound examinations performed at [clinic, city] on dd/mm/yyyy are not available for direct comparison. Comments regarding interval change cannot be made. Apart from the performance of the ultrasound examination, sonographs also have the ability to clinically examine the patient with the donor (sonopalpation) and observe important physiological or pathological changes with different clinical maneuvers or in different patient positions. These observations may provide additional clinical information. It may be useful to include these findings in the body of the report: The left ovary and left adnexa are not tender for application of donor pressure. Gynecological cause of LIF pain is therefore considered unlikely. Impingement of the supraspinatus muscle seen beyond the 45degree abduction area of pain directly corresponds to a cluster of reactive, but morphologically normal inguinal nodes. The results are consistent with lymphadenitis. The extent to which comments regarding image quality are helpful to the recipient of a diagnostic report is debatable, however, significant technical deficiencies that may affect the interpretation of the survey must be recognized.22, 25, 29, 30 On the other hand, excessive hedging is generally considered unhelpful because clinicians may not be the extent to which the results can be relied upon.42 For example, make a comment that examination of the liver is suboptimal due to increased BMI of the patient, but no apparent liver mass detected can leave the referring clinicians questioning whether (a) there is no liver mass or (b) a liver mass was not detected because it was not detected to begin with. If the quality of the examination significantly impairs the diagnostic confidence of the sonograph or the examination is non-diagnostic, these considerations should be disclosed. Whenever possible, suggestions on how to achieve a diagnostic result should be offered. Assessment of the liver with ultrasound is non-diagnostic due to technical limitations associated with high BMI. Given the background of hepatitis B and rising AFP, consideration should be given to other cross-sectional imaging. Fetal heart and face anatomy cannot be assessed due to unfavorable fetal position. Repeat ultrasound in 1 week time is recommended to complete fetal morphology assessment. Adequate transabdominal and transvaginal ultrasound examinations of the pelvis cannot be achieved because the patient is experiencing severe pain and cannot tolerate the examination. The investigation was abandoned. Transvaginal pelvic ultrasound may be possible to achieve during light sedation. Please contact our team on extension x1234 to discuss. Sonographers, like all health care professionals who use ultrasound (radiologists, point-of-care practitioners, emergency physicians and others), may not have the full spectrum of expertise in all subspecialties of ultrasound. For this reason, sonographs should resist the temptation to give specific diagnoses in areas outside their areas of expertise. For example, a sonographer working in a private center may be very adept at performing fetal morphology scanning, but may not be proficient in the performance and interpretation of fetal echocardiography. In the case of a temporary discovery of a complex congenital cardiac abnormality, it may be more appropriate to (a) withhold specific diagnostic comments, (b) report that the examination of the fetal heart raises suspicion of congenital cardiac abnormality' and (c) refer the patient to a tertiary-level fetal medicine unit for formal echocardiography in which the full range of relevant diagnostic comments can be made in a format required by the underspecialist pediatric cardiology team. Fortunately, sonographers usually work as part of a team in a clinic or hospital setting. Such environments offer ample opportunities for consultation with colleagues to solve complex image problems. The final summary should include final interpretative comments, recommendations (where appropriate) and any additional measures taken. No new information should be included in the conclusion not contained in the findings section of the report.29, 30, 32, 43 Urgent or significant results should be prioritised and listed only with less find second.25, 32, 44Impression:1 Acute calculous cholecystitis2 No biliary dilation3 Fatty liver disease4 Simple cyst in the left lobe of the liver Impression:Results are strongly suggestive of ruptured right-sided ectopic pregnancy. Temporary note was made of a simple left ovarian cyst. The patient was immediately transferred to the emergency room after the examination. The terms impression, conclusion or summary are preferred over diagnosis.32 As a read-effectiveness issue, many clinicians tend to skip the body of the report and immediately refer to the conclusion.25 For this reason, the conclusion should provide a clear and concise summary of the report. In routine examinations, the summary may be concise. Normal abdominal ultrasound. No cause of RUQ pain was identified. Interval fetal growth has been normal. Unremarkable ultrasound examination of the right axis. In other cases, it may be useful to indicate whether the results are benign or whether. Occasional premature atrial contractions were noted. These represent a benign fetal arrhythmia that usually resolves spontaneously. Further imaging is not required unless CTG or bedrest Doppler examination raises the possibility of supraventricular tachycardia. The presence of multiple target lesions in the right lobe of the liver is very concerning for the presence of metastases. It is acceptable that short reports should not be concluded.25, 30, 31 Interpretative and diagnostic comments may be made within the examination section and/or the conclusion depending on the length and style of the report. The fetal kidneys and bladder are clearly visualized. The fetus is normal in size. Although the mother reports no fluid loss, early rupture of the membrane is the most likely cause of anhydramnios. The interpretation requires that the findings of the ultrasound examination be placed in the clinical context. Sonographer needs to exercise rigorous clinical assessment and consider all information (imaging findings, patient history, clinical presentation, laboratory results, prior imaging and other sources) in formulating a diagnostic opinion. Wherever possible, the diagnostic comments should be direct and definitive.32, 42The palpable scrotal lump corresponds to a simple epididymal cyst. There's no testicular mass. If this is not possible, clinically realistic differentials should be provided and ranked appropriately in terms of probability or clinical priority (Figure 2).13, 22 The cause of gallidation is not visualised. Given the acute presentation with pain and jaundice combined with the presence of gallstones in the gallbladder, choledocholithiasis is considered highly likely. The pancreas was well visualized and seems normal. Ampullary-level pathology while less likely cannot be excluded by ultrasound alone. Comprehensive lists of differential diagnoses should be avoided as they are generally not helpful.44 If the finding is ambiguous or ambiguous the sonographer may still be able to limit the differentials down to a probable causative process (inflammatory, neoplastic, ischemic, hemorrhagic or otherwise) or may indicate the likelihood that the appearance represents a benign or sinister process. The palpable axillary lump represents an enlarged and morphologically abnormal lymph node that shows several concerning features including: loss of normal hilar patterns, rounded shape, asymmetry of parenchymal thickness, microlobulated margins, and zones of hyperperfusion. Clinically unrealistic differentials should not be included or should be dismissed. Right testis: length = 4.5 cm, volume = 14.5 ccs (normal), color Doppler perfusion: normal Testislerad torsion has been excluded. Findings of no or no clinical significance should be recognized as such with appropriate qualifying comments.32, 41, 45 Two small gallbladder polyps were noted measuring 2 and 3 mm in size. These are of no clinical significance and do not require further follow-up.sequel. In isolation, koreoid plexus cysts represent a benign finding and no further assessment is required. In addition, the sonographer should ensure that the report directly addresses all clinical issues raised in the referral.13, 25, 29, 30, 34 In addition, the sonographs should also anticipate clinical issues that were not explicitly mentioned in the referral.43 In some cases, in some cases, indicating the lack of specific results, the sonograph should also reassure the clinician by stressing that sufficient attention has been paid to the contact region concerned. The cause of RIF pain was not identified on transabdominal or transvaginal ultrasound. Specifically, there is no evidence of gynecological abnormality, appendicitis or urolithiasis. No anatomical cause of menorrhagia identified. Specifically, no endometrial thickening, polyp or fibroid was detected. Sometimes the sonographer may have to ignore misleading clinical information that may have led the referent to suspect a different disease process than the ultrasound convincingly indicates. Although the patient reports acute onset of left testicular pain after a sporting injury, ultrasound findings are strongly suspected of testicular malignancy instead. There is no sonographic evidence of trauma. Finally, when designing diagnostic comments, the sonographer should be aware of his level of competence. Anographer should exercise a judicious threshold to seek advice or a second opinion from a senior colleague such as an expert sonographer, radiologist or sonologist, especially in cases that require a multimodality approach to reach the diagnosis.13 The conclusion may also include recommendations for further testing, monitoring, referral, treatment, and other considerations that may help the deputist to manage the patient. Adhering to the principles of provenherity is particularly important. In many cases, the sonographer may refer to established local, national or international guidelines for making 46-54 No signs of intrauterine or ectopic pregnancy were detected. This is a pregnancy of unknown location (PUL). Clinical monitoring and serial bHCG are recommended. Repeat transvaginal ultrasound may be offered when bHCG

