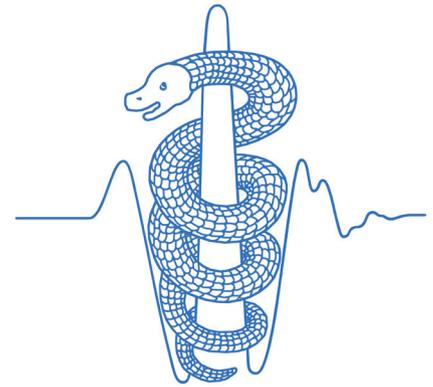


EFSUMB Newsletter

European Federation of Societies for Ultrasound in Medicine and Biology



Joint ESR-EFSUMB recommendation on archiving and reporting ultrasound (US) examinations

Keywords

- ▶ Ultrasound
- ▶ Archiving
- ▶ Information technology systems

Abstract

The ESR and EFSUMB have issued a joint statement about the necessity of a formal report for all ultrasonographic examinations as well as proper archiving of both reports and images within hospital information technology (IT) systems. Both societies agreed on the importance of availability of US images and reports in clinical practice and agreed on a formal recommendation to their members on this topic.

Main messages

- ▶ Availability of reports and images of all US examinations is important in clinical practice as a record of patient status at the time of the studies and as a point of references for future studies, with either US or other imaging modalities
- ▶ Both ESR and EFSUMB consider it good clinical practice to provide accurate and retrievable recordings of all ultrasonographic examinations
- ▶ Both ESR and EFSUMB recommend to their members to organise workflow in ultrasonography so that proper archiving of both images and reports of all studies can be regularly obtained.

In 2011, the ESR Working Group on Ultrasound (US) conducted a survey on the organisation and practice of US within radiology departments. One of the results of the survey points out that the US studies

performed by the laboratories of European hospitals are not always formally reported and that the reports and images of examinations are not always properly archived within the hospital IT systems (1).

Within the framework of the relationships established by the ESR Working Group in US with the European Federation of Societies for Ultrasound in Medicine and Biology (EFSUMB), it has been agreed to prepare and publish a joint recommendation about the necessity of a formal report for all US examinations, as well as of proper archiving of both reports and images.

Archiving of US images and reports is technically feasible, either as a separate archive dedicated solely to US or, better, within the hospital PACS (2, 3). It has been recognised that there may be difficulties in providing a network connection when US examinations are performed at the bedside or in an emergency setting, and that large memories may be needed to store large amounts of data when video-clips have to be recorded. However, the widespread use of wireless communication systems and continuous advances in archiving technology should overcome the current problems (4).

From a clinical point of view, availability of US images and reports is recognised by both societies as important in medical practice, as a record of patient status at the time of examination and as a point of reference for future studies. It is believed that compliance with this recommendation will be helpful to improve the quality of services provided to patients.

Recommendation

Ultrasonography is a diagnostic technique used in many clinical applications and by different specialists during their practice. US images are not always routinely saved in the hospital PACS systems and, within the same hospital, the reports of the US examinations are often recorded in a variety of archives. However, the availability of US images and reports is important in clinical practice as a record of both in- and out-patients' status at the time of the examination and as a point of reference for future studies, with either US or other imaging modalities. Availability of US images, videos and reports substantially improves the quality of services provided to patients.

Although it is recognised that:

- ▶ it may be difficult to find resources to link all US equipment to the IT hospital system and to provide enough memory to store large amounts of data, especially if video clips have to be recorded;
- ▶ there may be problems in planning a uniform and complete storage of the examinations' reports, since US can be used in a large variety of ways, from a stand-alone study to a simple and quick guide to a procedure or a physical exam;

both ESR and EFSUMB consider it good clinical practice to provide accurate and retrievable recordings of all US examinations.

EFSUMB

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Both societies recommend to their members to organise workflow in US so that proper archiving of images, videos and reports of all studies can be regularly obtained.

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It was approved by the ESR Executive Council, the EFSUMB Executive Bureau, and the EFSUMB Education and Professional Standards Committee in May 2013.

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Ultrasonography courses for medical students organized by “Iuliu Hatieganu” University of Medicine and Pharmacy and SRUMB (The Romanian Society of Ultrasonography in Medicine and Biology)

– A project that seems to be successful. Should it be continued?

The vision of the European Federation of Societies for Ultrasound in Medicine and Biology, on the medium and long term, is to implement ultrasonography as a basic educational and clinical diagnosis instrument for medical students.

The results obtained until now show a rather inconsistent and incoherent teaching of ultrasonography in the European medical schools. There is an obvious lack of vision on this aspect even though there is a consensus regarding the value of ultrasonography in the teaching of various disciplines (anatomy, physiology, physiopathology and semiology) as well as in completing the diagnosis algorithm (clinical applications in different specialties and medical emergencies) [1-8].

Such a project could take many directions. The Romanian Society for Ultrasonography in Medicine and Biology – SRUMB (www.srumb.ro), taking advantage of an experienced and dedicated academic

team, but also of a newly improved laboratory, equipped with simulators developed by the “Iuliu Hatieganu” University of Medicine and Pharmacy, has initiated basic courses for students as part of its national conferences – as far as we know this idea has an innovative character. The project started in 2012 on the occasion of the XVth National Conference of the Romanian Society and of the 1st Symposium of Medical Education using Ultrasonography which took place in Cluj-Napoca during 31st May – 2nd June 2012 and continued with the IInd edition, as part of the XVIth Ultrasonography conference which recently took place in Oradea (30th May – 1st June). Why “Iuliu Hatieganu” University of Medicine and Pharmacy? Because in this school of medicine there are consistent preoccupations focused on educational activities using ultrasound [2, 9-12]. Why in association with the national conference? Because this kind of manifestation in Romania is usually organized in university centers where there



Fig. 1



Fig. 2



Fig. 3

are medical schools and because in the last years (at least the ones in Cluj and Oradea) they were organized with the support of the students' organizations. Also because they were easy to organize using the local academic team and having a direct relationship with the exposition of

the ultrasound machines which is usually present at such events. The events also benefited from the support of the local dealers of the name brands (in these situations equipment from Phillips was used) and the students were able to learn using simulators.

The courses were organized requiring preregistration, the applications being closed much earlier than those of the physicians, and the promotion of the courses was handled by the students' organizations. In both editions of the conference, the number of participants was limited to 75, thus granting each student the opportunity to practice the ultrasonographic technique on an ultrasound machine.

The coordinators of the courses were Dr. Monica Platon-Lupsor from "Iuliu Hatieganu" University of Medicine and Pharmacy, Cluj-Napoca and Dr. Alina Venter (Oradea) for the abdominal ultrasonography section and Dr. Sorin Pop ("Iuliu Hatieganu" University of Medicine and Pharmacy, Cluj-Napoca) and Dr. Dan Sirca (University of Medicine, Oradea) for the vascular and cardiac ultrasonography section. A distinct area equipped with a projector for the theoretical part (figure 1) and mannequins and portable ultrasound machines (figure 2, 3) was available each time.

The level of training was basic, the educational objectives being focused on the "stimulation" of the students' interest regarding the use of this method. The whole length of the course was 8 hours and consisted of basic theoretical ultrasonographic concepts (the appearance of the portable equipment, the kind of information it can provide, minimal knowledge about the manipulation of the machines, the normal aspect of the abdominal organs, heart and great vessels) and real-time examinations performed on a on a real subject and on a simulator, always assisted by a coordinator.

Questionnaires were administered after each course and their results indicated that the students appreciated the organization of this course as part of the conference and considered useful the short presentation of the theoretical part and even more the "hands-on" sessions. All the students considered useful the organization of such a course in each ultrasonography conference and suggested a longer period for the course (2 days instead of 1).

We consider that this model of implementing basic ultrasonographic knowledge is useful for medical students. There is an obvious collegial closeness between the students and the residents and specialists. The interest of the students is due to the applicable character of this diagnosis procedure which makes it easy for them to learn. The professional societies should therefore be more involved in promoting ultrasonography among students. SRUMB will continue this practice during its conferences in the following years – in Timisoara in 2014 and Constanta in 2015.

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 **Ultraschall 2013**
Euroson 2013

Congress in Stuttgart 9 – 12 October

EUROSON/Ultraschall 2013

The preparations for the EUROSON/Ultraschall 2013 Congress in Stuttgart 9 – 12 October are moving straightforwardly. The organizers are looking forward to welcoming European specialists and ultrasound scientists as well as clinicians and practitioners in ultrasound. Under the congress motto „Science and Education“ both scientific work as well as the broad spectrum of education and teaching are pointed out to connect the interdisciplinary faculty of European ultrasound providers in the joint meeting of EFSUMB, DEGUM, OEGUM and SGUM. It is definitely

this year's main event in ultrasound and the congress of all European experts – it is „our congress“!

Late Breaking News

The scientific committee was happy to receive more than 350 scientific abstracts mostly of high quality in all offered categories. One of the main topics of the scientific sessions will be ultrasound elastography as a new diagnostic tool. This is now brought to a wide spectrum of scientific evaluation in several fields like liver, other abdominal organs, thyroid, muscu-

loskeletal, gynecology, breast, small parts, prostate and others. Another top act in actual scientific work is still contrast enhanced ultrasound. Quantification of contrast agents enhancement i.e. in oncology or inflammatory bowel diseases for evaluation of (early) therapeutic response will lead to more influence of sonography in those diagnostic and therapeutic fields.

Ultrasound in Gynecology and Obstetrics as well as in prenatal medicine and breast imaging are big points in this year's joint meeting in Stuttgart. New methods like elastography in these indications are proven and well known tools, like 3D US, are evaluated and discussed. Pediatric sonography with its unique position in imaging for these patients is still of high scientific interest. So there will be more than one session dealing with this topic.

Results of research with ultrasound in neurology, vascular diseases, head and neck as well as in emergency, interventions, endoscopy and in daily clinical practice are presented to the public and discussed in several sessions. Some new techniques will be presented and offer the view to future developments.

Special case reports sessions will give the opportunity to share interesting and educative cases with all participants. This points out the importance of recognizing rare diagnosis as well as the possibility of pitfalls and mystery. Those sessions will be moderated by very experienced specialists and are usually of high interest for all clinicians.

Poster sessions complete the scientific part of the congress offering the possibility of discussion with the scientists and moderators. They are a must for such a congress.

Education program

Traditionally the Congress starts with the Categorical Courses. These substantial educational courses are focusing on a major ultrasound topic over a series of sessions lasting six hours. They are of interest for the more specialised experts of ultrasound, but from basics to advanced topics.

Throughout the other two and a half days there are almost 80 Refresher Courses of 90 minutes each beside the scientific sessions. They aim to refresh knowledge, reviewing and updating the more basic subjects for those who have not kept up to

speed with certain developments or just who need a reminder. There is something of interest for the beginner up to the experts in this field.

Hands on training

The Ultrasound Learning Center will be open on two days and invites all participants for hands on training in several named sessions and topics. This offers the opportunity to have a close look to Europe's ultrasound experts in real time. For the first time a special course for me-

dical students connects our future colleagues with our societies.

Program information

All details and information about the congress are available on the website www.euroson2013.org

See you in Stuttgart.

Andreas Schuler and Fabio Piscaglia



EUROSON 2014

The Israel Society of Ultrasound in Medicine (ISDUM) is proud to host the 2014 Annual Congress of the European Federation of Societies in Ultrasound in Medicine (EFSUMB) to be held at the David Intercontinental Hotel in Tel Aviv on May 26th-28th. We are committed to offer a comprehensive program on the applications of diagnostic and interventional ultrasound in the different fields of medicine including the late technical developments and clinical researches, presented by worldwide known lecturers. We kindly invite you to visit our website at <http://www.euroson2014.org/>. The scientific program will include a full-day pre-congress courses on the topics of Musculoskeletal Ultrasound, Emergency Ultrasound, Abdominal Ultrasound and Breast Ultrasound, and two and a half congress days, split into Small Parts, Vascular, Interventional, Gynecology and Obstetrics, Urology, Gastrointestinal, Musculoskeletal, Emergency, New Technologies and others topics. Every session will be comprised of invited lectures and scientific papers. Hands-on workshops will be developed both in the pre-congress courses and during the congress. Scientific posters and an extensive technical exhibition will be offered all over the con-



gress. The event will include tasteful meals included in the registration fees, served during coffee breaks and lunches, in the environment of David Intercontinental Hotel, situated on the beautiful Tel Aviv beach at the Mediterranean Sea. Besides, we invite you to take the opportunity to visit some of the multiple sightseeing, cultural, historical and religious sites in Israel through organized trips offered by our Organizing Company (Paragon-Dan Kinusim). We look forward to seeing you in Tel Aviv, the city that never sleeps!

Educational Portals

Technological progress opened new perspectives to Ultrasound; on the other hand new clinical applications are emerging with the need for the practitioner to stay up to date and also refresh personal knowledge. In addition to traditional educational sources, the internet every day offers even more a cornucopia of websites on which e-learning and specific sources of information on ultrasound are available.

E-books, journal articles and other electronic learning material, can be purchased and instantly downloaded. On the other hand, there is a wide offer of free of charge learning materials on the web too. The use of tablet pc's with web navigation and multiple functions, serves as personal electronic libraries ready for consultation also during practice, offering easy reading experience with links for internet pages. Some use different specialized tablet applications, while others prefer a simplified organization with read only opportunities.

Among the most useful e-books, the authoritative EFSUMB course book on ultrasound prepared by prestigious experts, updating the ultrasound state of the art, is highly advisable. Other e-books on ultrasound can be purchased at various web portals. Many paper books offer codes for accessing their web pages for further reference and ample illustrations. Video illustrations of these books are possible giving learning opportunities available only on the web.

EFSUMB has an online educational portal with cases and video presentations. It also offers a post-graduate web course and links to useful web pages. In the EFSUMB blog the member practitioner can stay in touch with the colleagues, discuss particular topics, such as the most recently presented on CME accreditation, and to ask questions. A recent newcomer and rapidly growing part of this educational portal is the EFSUMB ATLAS which offers state of the art images with succinct but adequate descriptions (www.efsumb-atlas.org).

Among the best web sites for e-learning are those of ESR with EURORAD cases and EPOS presentations, the sites of RSNA and

their two journals, the site of the American Institute of Ultrasound in Medicine, that of the Australian Institute of Ultrasound, the site of American College of Radiology with their cases, etc. Wide possibilities of free journal articles can be found. There is the possibility to earn continuous medical education (CME) credits online, too, in many web sites.

The recent advancements of ultrasound, in the midst of initial enthusiasm and literature reports, should be applied in clinical practice with care and only when warranted by the guidelines. The EFSUMB

web site shows as main titles in the home page its guidelines for CEUS and Ultrasound Elastography applications prepared by specialized experts in these fields.

In addition to that, Pubmed search provides the possibility to find literature references and read the abstracts and the full text of the free articles. It also has a search option but only for free of charge articles.

General searches with the common used search engines is not particularly advisable as the redundancy of in-authoritative web sites where one is directed, may induce focusing and spending time on unimportant and sometimes misleading information. Quickly refreshing some notions of the pathological basis of disease

The screenshot displays the EFSUMB ATLAS website interface. At the top, there is a header with the EFSUMB logo and the text "European Federation of Societies for Ultrasound in Medicine and Biology". Below the header is a search bar labeled "Search Atlas Database For:" and a "GO" button. A "HOME" button is also visible. The main content area is titled "CEUS NON LIVER GUIDELINES > Gastrointestinal Tract > Inflammatory bowel disease". It features a grid of video and image thumbnails, each with a play button icon and a label. The labels include "Acute diverticulitis of the sigmoid colon", "Crohns Disease - Cine loop of CEUS of a fibrous stenosis 001", "Crohns Disease - Cine loop of CEUS of a fibrous stenosis 002", "Crohns Disease - color doppler ultrasonogram of small intestine", "Crohns Disease - colour flow signals in the GI wall", "Crohns Disease - Enterocutaneous fistula located at the left lower quadrant", "Intestinal Loops of Colon Sigmoid", "Non-enhancing lesion with hyperenhancing rim and septa - abscess formation", "Ulcerative Colitis - enhancement of the sigmoid colon wall", and "Ulcerative Colitis - time intensity curves of a sigmoid colon wall". A left sidebar contains a detailed navigation menu with categories like "CEUS LIVER GUIDELINES", "CEUS NON LIVER GUIDELINES", and "ELASTOGRAPHY".

with wikipedia might be acceptable when one is in a hurry at work, but using internet at large, to look up information for compiling the report of an examination might lead to flaws and errors. During an ultrasound examination with a difficult presentation, the physician could mistakenly be over-involved with the identification of one or a few signs of specific diagnoses that he knows of, and he might re-enforce his confidence with the web search, yielding a misleading report that leaves out more probable diagnoses. In such problematic cases the author of this letter, has found useful in his experience, giving a report of ultrasound description, refraining from quick web consultations, and keeping contact with the physician that has the patient in his care. It is better, later, after work, to look up authoritative sources and ask the referring physician for useful clinical information and exchange opinions with him or her about possible diagnoses that are compatible with the ultrasound presentation. Sometimes, it has also been useful, recalling the patient for ultrasound, after consulting the literature on the web and on this basis discussing with the referring physician.

Specific diagnostic imaging search engines could be useful: www.yottalook.com and www.searchradiology.com. With these searches, links to many authoritative free of charge publications can be found. Going straight to the web site of a specific journal and searching there, without a general search, is a viable option for someone who has a favorite journal such as *Ultraschall in der Medizin (EJU)*, *Radiographics*, *Radiology* and *American Journal of Roentgenology*. Many journals offer for free, online, the articles that are not of their very recent journal issues. One can also search for only images with the radiology web searches, when the aim is to further reinforce the learning and memory of what one has studied. In such a situation, after one has gained theoretical notions, www.ultrasoundcases.info is found useful by many colleagues; well organized web site with abundant images and little or no descriptions and explanation of signs. Hours of image reviewing can be spent in this web site, with organ based or

pathology based organization. Reviewing a plethora of cases and images counts as experience and helps the ultrasound operator to progress up in the learning curve and increase confident accuracy in the diagnosis. ecomovies.it, siumb.it and many European national ultrasound societies offer in their web sites ultrasound courses, case reports, image and videos galleries, their journals and other online learning materials. Interesting is the Case of the Month of EFSUMB. Furthermore, EFSUMB as mentioned above has an educational portal and is planning to start online courses with EFSUMB CME credits.

A panoply of ultrasound case reports and lectures can be found in a variety of other General Imaging web sites, as for example, goldminer.arrs.org; mypacs.net; rad.usuhs.edu/medpix; radiology.casereports.net; medicalrounds.com; acr.org; med-ed.virginia.edu/courses/rad/ (tutorials on thyroid, testicular and emergency ultrasound); learningradiology.com; auntminie.com; radquiz.com. ... For advanced searches: clinicalkey.com. For ga-

mutts in imaging differential diagnosis: gamuts.acr.org/. Furthermore, some manufacturers offer ultrasound images in their web site or sponsor ultrasound learning sites. Access to journals can be found through isradiology.org.

Cautious and responsible evaluation of the source and reliability of internet information is crucial.

In conclusion, e-learning is a most useful tool for the ultrasound practitioner in helping his progress in the path of continuous lifelong learning, honing his specific skills and enhancing the diagnostic confidence. Improving the quality and the offer of e-learning is therefore mandatory since "Education is the most powerful weapon which you can use to change the world" (Nelson Mandela)

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Euroson Schools



EUROSON SCHOOL 23rd – 24th September 2013
4th International Course of DCE-US in Oncology **Paris, FRANCE**



EUROSON SCHOOL - Košice, Slovak Republic
Advanced Abdominal Ultrasound Course 18th - 19th October 2013



EUROSON SCHOOL - Hannover, GERMANY
International Course on CEUS Part II 25th – 27th October 2013



EUROSON SCHOOL - Ergife Palace Hotel, ROME
CEUS: Update on Liver and Beyond 15th - 16th November 2013

EUROSON Schools and Endorsed Courses can be found on the EFSUMB website www.efsumb.org