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## **Evaluation of the three-years activity of Italian Society of Internal Medicine (SIMI) Bedside Ultrasound Schools**

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De Sio I, Parrinello G, Perrone T, Loffredo L, Testa A, Vidili G, Rigo L Scientific*

*SIMI Bedside Ultrasound Schools*

# Use of Ultrasound

*different diffusion in the world 70-90 yrs*

- USA  
(A-B Mode /  
sonographers)
- Europa e Giappone\*  
(Real-Time / clinicians)



# Background

*(history of SIMI Bedside US Schools)*



*Meet to SIMI President  
(Milano 2004)*



*SIMI US Summer School (Monterenzio – Bo, 2005)*

 <b>SIMI</b> Società Italiana di Medicina Interna
Gruppi di Studio
<ul style="list-style-type: none"><li>• Cefalee in Medicina Interna Coordinatore: <i>Paolo Martelletti</i></li><li>• Ecografia Clinica Coordinatore: <i>Vincenzo Arienti</i></li><li>• Aterotrombosi Coordinatore: <i>Pasquale Pignatelli</i></li></ul>
Cefalee in Medicina Interna <b>Ecografia Clinica</b> Aterotrombosi

*SIMI US Study Group (2010)*

# Results of Survey

(SIMI US centers)



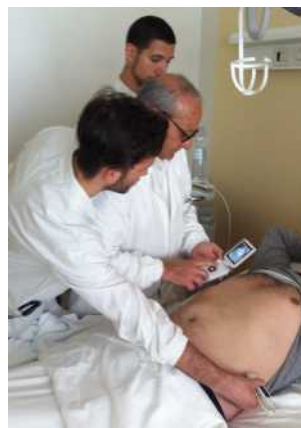
# “Echoscopy” and “Point of Care US”

*(role and training program)*



**ECOSCOPY**

Pocket size device



**Point Of Care US (POCUS)**

Tablet size device



Intern Emerg Med  
DOI 10.1007/s11739-014-1113-4

## The SIMI Point of View

HTA ORIGINAL

### Bedside Ultrasonography (US), Echoscopy and US Point of Care as a new kind of stethoscope for Internal Medicine Departments: the training program of the Italian Internal Medicine Society (SIMI)

Vincenzo Arienti • Rosella Di Giulio •  
Chiara Cogliati • Esterita Accogli • Leonardo Alnigi •  
Gino Roberto Corazza • Ultrasound SIMI Study Group

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*from imaging to physical examination*

**Fig. 2** Italian distribution of SIMI Schools that organize theoretical and practical course of bedside US for all Internal Medicine specialists



# Aim

Evaluation of 2015-17 activity of the SIMI Bedside US Schools

## Materials and Methods 1

Ø A questionnaire about retrospective activity has been sent to all active SIMI Schools

Ø Period: June 2015-May 2017 = 24 months

Ø *Questions:*

- 1) Does your school perform *all the BedUS exams* of the training Course (Neck, Heart, Lung, Abdomen, CUS)?
- 2) If not, for *what type of BedUS exam* (Neck, Heart, Lung, Abdomen, CUS) do you request the collaborations of colleagues from other non-Internal Medicine Units or Departments?

# Materials and Methods 2

*(questions)*

-3a) How many *theoretical BedUS Courses* did you organize? and 3b) how many participation *certificates* did you release?

-4a) How many *BedUS Stage* of one week (training in *Ecoscopy*) did you organize? and 4b) how many participation *certificates* did you release?

-5a) How many *BedUS Stage* of two weeks (training in *Point Of Care US – POCUS*) did you organize? and 5b) how many participation *certificates* did you release?

Two more questions were also asked to the SIMI secretariat:

-6a) how many *SIMI Minimaster* certificates in *Ecoscopy* and 6b) in *Point of Care UC (POCUS)* has been released by SIMI?

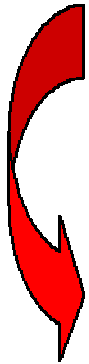


## *Minimaster SIMI in Eco Bedside*

### *Minimaster in Ecoscopy*

*The SIMI certificate of competence of first level of bedside US is achieved by means of participation in:*

- 1) theory bedside US course held every year in the SIMI National Congress*
- 2) theory and practical bedside US stage of one week in a SIMI School, according to the educational program of Ecoscopy*



### *Minimaster in Point of Care US*

*The SIMI certificate of competence of second level of bedside US is achieved by means of :*

- 1) acquisition of the certificate of Minimaster SIMI in Ecoscopy*
- 2) participation in one theory bedside US course in a SIMI Naz School*
- 3) practical bedside US stage of two weeks in a SIMI Naz School, according to the educational program of Point of care US*



# Results 1

*percentage of response = 12/13 (92%)*

**School:** *Director and Representative*

**Bari (BA):** *Portincasa, Palmieri*

**Bologna-A (BOA):** *Arienti, Domanico*

**Bologna-B (BOB):** *Bolondi, Piscaglia*

**Firenze (FI):** *Gensini, Boddi*

**Milano-C (MIC):** *Cogliati, Cogliati*

**Milano-F (MIF):** *Fargion, Fracanzani*

**Napoli (NA):** *Loguercio, De sio*

**Palermo (PA):** *Pinto, Parrinello*

**Pavia (PV):** *Corazza, Perrone*

**Roma-T (RMT):** *Testa, Costa*

**Roma-V (RMV):** *Violi, Polimeni, Loffredo*

**Sassari (SS):** *Satta, Vidili*

**Verona (VR):** *Cominacini, Rigo, Mozzini*



# Results 2a *(responses 1,2,3ab)*

Schools	BedUS examens		T.Courses	
	1	2	3a	3b
<b>BA</b>	Yes		0	0
<b>BOA</b>	No	H	3	224
<b>BOB</b>	No	H	1	50
<b>FI</b>	No	H, L	2	10
<b>MIC</b>	Yes		9	200
<b>MIF</b>	Yes			
<b>NA</b>	No	H	2	47
<b>PA</b>	Yes		1	17
<b>PV</b>	No	H, CUS	1	50
<b>RMT</b>	Yes		3	46
<b>RMV</b>	No	A		
<b>SS</b>	Yes		1	40
<b>TOT</b>	<b>6 Yes / 12</b>	<b>5 H / 12</b>	<b>23</b>	<b>684</b>

# Results 2b *(responses 4ab,5ab,6ab)*

<b>Schools</b>	<b>Ec.Stage</b>		<b>Pocus Stage</b>		<b>SIMI Cert</b>	
	<b>4a</b>	<b>4b</b>	<b>5a</b>	<b>5b</b>	<b>6a</b>	<b>6b</b>
<b>BA</b>	1	14	1	14	1	1
<b>BOA</b>	15	15	11	11	2	2
<b>BOB</b>						
<b>FI</b>	2	2	5	10	3	4
<b>MIC</b>	7	7	6	6	4	3
<b>MIF</b>	6	6				
<b>NA</b>	2	47				
<b>PA</b>						
<b>PV</b>						
<b>RMT</b>	12	12	4	4	1	1
<b>RMV</b>						
<b>SS</b>	1	7	2	7	2	2
<b>TOT</b>	<b>46</b>	<b>110</b>	<b>29</b>	<b>52</b>	<b>13</b>	<b>13</b>

# Conclusions

- Ø All Schools except one answered the questionnaire.
- Ø Cardiac BedUS is the type of exam most frequently performed by colleagues from other non-Internal Medicine Units / Departments.
- Ø In spite of the remarkable attraction of attending the theoretical BedUS Courses, there is less interest in practical training and in obtaining the SIMI certificates of Minimaster in Ecoscopy and / or POCUS.

# Comments

## *Bedside US SIMI network*

∅ The Italian Society of Internal **Medicine was the first scientific Society** of Internal Medicine to set up a BedUS network.

∅ .... in the knowledge that BedUS, entered into **daily clinical practice** as semiological a tool for internist and emergency doctors....

∅ ... in line with Medical and Surgical Course **Degree**, with **Specialization** Schools training and Public Health **Accreditation** of Internal Medicine Departments

## CURRENT CONCEPTS

# Point-of-Care Ultrasonography

Christopher L. Moore, M.D., and Joshua A. Copel, M.D.

ULTRASONOGRAPHY IS A SAFE AND EFFECTIVE FORM OF IMAGING THAT has been used by physicians for more than half a century to aid in diagnosis and guide procedures. Over the past two decades, ultrasound equipment has become more compact, higher quality, and less expensive, which has facilitated the growth of point-of-care ultrasonography — that is, ultrasonography performed and interpreted by the clinician at the bedside. In 2004, a conference on compact ultrasonography hosted by the American Institute of Ultrasound in Medicine (AIUM) concluded that “the concept of an ‘ultrasound stethoscope’ is rapidly moving from the theoretical to reality.” This conference included representatives from 19 medical organizations; in November 2010, the AIUM hosted a similar forum attended by 45 organizations.<sup>1-3</sup> Some medical schools are now beginning to provide their students with hand-carried ultrasound equipment for use during clinical rotations.<sup>4</sup>

Although ionizing radiation from computed tomographic (CT) scanning is increasingly recognized as a potentially major cause of cancer, ultrasonography has been used in obstetrics for decades, with no epidemiologic evidence of harmful effects at normal diagnostic levels.<sup>5,6</sup> However, ultrasonography is a user-dependent technology, and as usage spreads, there is a need to ensure competence, define the benefits of appropriate use, and limit unnecessary imaging and its consequences.<sup>7-10</sup> This article provides an overview of the history and current status of compact,

[Point-of-care ultrasound as a competency for general internists: a survey of internal medicine training programs in Canada.](#) *Ailon J, Can Med Educ J. 2016.*

[Effects of Student-Performed Point-of-Care Ultrasound on Physician Diagnosis and Management of Patients in the Emergency Department](#)  
*Udrea DS, J Emerg Med. 2017.*

[Point-of-care cardiac ultrasound techniques in the physical examination: better at the bedside](#) *Kimura BJ, Heart. 2017*

[Lung ultrasound: a useful tool in the assessment of the dyspnoeic patient in the emergency department. Fact or fiction?](#) *Wimalasena Y, Emerg Med J. 2017*

Ministero dell'istruzione, dell'università e della ricerca  
D.M. 1-8-2005  
Riassetto delle Scuole di specializzazione di area sanitaria.  
Pubblicato nella Gazz. Uff. 5 novembre 2005, n. 258, S.O.D.M. 1 agosto 2005 [\(1\)](#).

## **Riassetto delle Scuole di specializzazione di area sanitaria:**

*om i s s i s*

- Ø aver eseguito **direttamente 10 esami ecografici** da poter interpretare le immagini di interesse internistico (tiroide, mammella, apparato digerente, fegato e vie biliari, pancreas, milza, reni e surreni, vescica);

*om i s s i s*

- Ø Ecografia internistica. Lo Specializzando deve essere in grado di eseguire correttamente un esame ecografico del **collo, dell'addome, della pelvi, dei tessuti molli e un esame ecoDoppler** dei grossi vasi arteriosi e venosi; di confrontare e correlare i reperti ottenuti con le risultanze dell'esame obiettivo e di altri accertamenti, anche d'immagine; di formulare ipotesi plausibili di malattia alla luce dell'obiettività clinica.



**Riordino scuole di specializzazione di area sanitaria**



*Il Ministro dell'Istruzione dell'Università e della Ricerca*

di concerto con

il Ministro della Salute

*Sono attività professionalizzanti obbligatorie per il raggiungimento delle finalità didattiche della tipologia (Medicina Interna):*

*-aver partecipato alla esecuzione di indagini strumentali (almeno 40 complessivamente) come ecoDoppler dei grossi vasi arteriosi e venosi, ecocardiografia, ergometria, endoscopia, scintigrafia, prove di funzione respiratoria, diagnostica allergologica;*

*-aver eseguito direttamente 50 esami ecografici da poter interpretare le immagini di interesse internistico (collo, tiroide, mammella, torace, apparato digerente, fegato e vie biliari, pancreas, milza, reni e surreni, vescica);*

*- aver discusso con lo specialista almeno 10 esami ecocardiografici*