W25: ICS Core Curriculum (Free): ICS GLOSSARY DISCUSSION PREVIEW

Workshop Chair: Elizabeth Shelly, United States
30 August 2018 09:05 - 10:35

Start	End	Topic	Speakers
09:05	09:20	Creation of standard terms and glossary preview	Elizabeth Shelly
09:20	09:35	Importance of unambiguous terminology	Luis Abranches-Monteiro
09:35	09:55	Underactive bladder - really a problem? Or the new disease created by industry?	Desiree Vrijens
09:55	10:15	Muscle tone - how do you measure - multidimensional	Elizabeth Shelly
10:15	10:30	The use of social media in healthcare	Sajjad Rahnama'i
10:30	10:35	Your turn to post	Sajjad Rahnama'i

Aims of Workshop

ICS experts establish terms and definitions used in research, education, and publication. Good definitions require input from all disciplines - MD, PT, RN, OT, basic science, patients, and industry - Urology, Gynaecology, Gastroenterology - experienced and newly qualified - and many different languages. This workshop is intended to introduce participants to the importance of active debate on standard terms. Bring your mobile device and participate. Be the change, influence the future of ICS and urology publications.

Learning Objectives

- Recognise the importance of standard terms and how they affect medical practice and patient care.
- Learn how ICS standard terms and definitions are created, discussed and refined.
- Understand the use of social media in healthcare.
- Live debate of the definitions of "PFM tone" and "underactive bladder"

Learning Outcomes

Participants will be able to

- Recognise the importance of standard terms and how they affect medical practice and patient care.
- Understand the use of social media in healthcare.
- Critically consider definitions "PFM tone" and "underactive bladder"

Target Audience

ICS members from all disciplines and languages including MD, PT, RN, basic science, patients, and industry working together to establish standard terms and definitions.

Advanced/Basic

Basic

Conditions for Learning

This is an interactive workshop with active debate. No limit on the number of participants.

ICS Standard terms creation and ICS Glossary Preview

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Physical Therapist
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The process of creating standard terms and definitions involves formation of a working group. An open call is given and applications submitted. Those with appropriate skills are invited and elected to participate. This terminology working group includes a multidisciplinary team representing different countries, disciplines and clinical practices. These authors research and debate and ultimately agree on the terms and definitions presented in the paper. This paper is then reviewed by the ICS Standardization Steering Committee and put up for review and comment by all ICS members. The final draft is reviewed and approved by the ICS Executive Committee and finally submitted for publication in Neurourology and Urodynamics. The initial process is expected to take 18 to 24 months.

But the process does not end there. After peer reviewed publication, terms are entered into the new ICS Glossary. Here further input is solicited and opinions collected which will be provided information to future working groups. We want your input. You can influence these terms and definitions.

Importance of unambiguous terminology

Dr Luis Monteiro
Urologist
Portugal

The importance of clear and unambiguous terminology
The impact on the patient of new or changed terminology/definitions,
in a positive or negative sense, along all links of the healthcare chain.

“If names be not correct, language is not in accordance with the truth of things.”
(Confucius)

What do we mean by the healthcare chain possibly being influenced by terminology ambiguities?

1. Consumer/patient information
2. Patient-doctor communication
3. Diagnostic and pathology reports, coding
4. Drug approvals and indications (licensing)
5. Reimbursement, disability benefits, insurance
6. Scientific communication and Research

Patient information

- Ambiguous language can change completely the significance
- A big problem in new consumer “knowledge” technology
- Also in LUTS
    - Urgency
        - Too many situations can be confused
    - Stress incontinence
        - Different concepts of “stress”

Patient-doctor communication

- Terms widely accepted by doctors may not be understood by patients
    - Desire to void
        - Is it a sensitive event or a will or intention? Patients would feel a “need” to void.
    - BPS or PBS since the name implies that there must be pain, whereas many patients have no true pain and will deny it because they do not consider symptoms such as discomfort, irritation, pressure etc to be pain. -> diagnosed as OAB? -> wrong treatment
    - Sensation of incomplete bladder emptying
        - Is it a true sensory experience or a logical interpretation? – “Since I voided twice in a short period of time, I have the sensation or impression that my bladder was not completely emptied”

Diagnostic and pathology reports

Although absolute diagnostic certainty in all cases is not attainable, nevertheless, unbridled use of unclear or ambiguous terminology may lead to additional, sometimes unnecessary tests and/or procedures directly or indirectly leading to increase in health care costs, as well as patient and clinician dissatisfaction.

There is significant difference in the interpretation of the degree of certainty between pathology and medicine in terms of "not excluded" (P=0.007) and "cannot exclude" (P=0.03).

Diagnostic and pathology reports

- Legal issues

Drug approvals and indications

- Nocturia
- Urgency and OAB
    - Multiple causes and mechanisms, artificially grouped in a symptom and a condition with specific medication approvals

Reimbursement, disability certificates, coding and insurance

- Diabetes insipidus
    - In some countries, chronic therapy for Diabetes (mellitus) is fully reimbursed
    - Desmopressin, as a drug for Diabetes (insipidus) benefits from this mis...conception
- Interstitial cystitis
    - when IC (a disease) was changed to BPS (a syndrome) some authorities refused to reimburse treatments licensed specifically for IC!

Scientific Communication and Research

- Without agreement on terminology, Meta-analyses are pointless
- BPS again:
    - Without "pain" patients are not eligible to be included in BPS trials?

Wrap-up

1-Words, terms and definitions became more important to patients than we anticipated
2- ICS took the lead on defining symptoms, signs and conditions and influenced society in many ways
3- The scientific community recognizes some limitations and is always ready to improve terms lead by knowledge but...
4- Some definitions have resulted in unintended changes which can influence patients greatly
5- Modifications and improvements must be used with caution
6- ICS wiki can be THE forum for wide discussion among all stakeholders before significant changes are proposed

Underactive bladder – Really a problem or the new disease created by the industry?

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Lower urinary tract symptoms (LUTS) can be caused by various conditions. Amongst this heterogeneous group of conditions, detrusor underactivity is one of the causes for voiding LUTS[4]. DU is often hidden behind other clinical phenotypes such as bladder outlet obstruction (BOO) or dysfunctional voiding; it may also coincide with the presence of urinary tract infections (UTIs) or urinary incontinence. Symptomatology includes prolonged voiding time, altered bladder filling sensation, (feeling of) post-void residual urine and/or slow urinary stream. Acute urinary retention (AUR) - as an extreme clinical presentation of DU - has a low incidence in young men with an incidence of 0.2 per 1000 man-years[6]. However, the incidence increases with age and the debilitating effect of catheterisation may impact a patient's quality of life[6-10].

The original definition on detrusor underactivity (DU) was written in the year 2002[1]. In addition to the ICS definition of DU, an ICS working group has proposed in the year 2015 a working definition for a more clinical approach of the topic in order to enable screening of patients based on symptoms and signs rather than pressure-flow measurement. This Underactive Bladder (UAB) working hypothesis includes: '*A symptom complex suggestive of detrusor underactivity and is usually characterised by prolonged urination time with or without a sensation of incomplete bladder emptying, usually with hesitancy, reduced sensation on filling and a slow stream*'[18]. Theoretically, a partial overlap between UAB, DU and BOO is considered but the purpose of the working hypothesis is to clinically identify patients who are suspicious of having DU (in pressure-flow analysis)[18,19]. However, there is a lack of scientific data particularly on the clinical symptom complex and its relation to urodynamically defined DU. The absence of robust data makes it impossible to accept the above mentioned clinical hypothesis already as a definition. A recent study of Gammie *et al.* exposed that the use of only LUTS in the diagnostic route might not have enough discriminative power to differentiate UAB from other causes of voiding dysfunction[20].

The exact prevalence of the DU/UAB is difficult to define due to the ongoing debate of the definitions. The reader has to keep in mind that the occurrence of the condition(s) is dependent on the definition and the used threshold values as well as on the available assessment tools for identification and differentiation. Therefore, researchers are currently only able to make a rough estimation of the prevalence of DU and UAB.
Patients with PVR due to DU are often difficult to identify because symptoms and signs are often masked behind identical or similar symptoms or signs of voiding dysfunction. To complicate matter, men or women with DU may even be without PVR or LUTS. Based on current literature, the prevalence of DU in men has been estimated to be 9-23% and as high as 48% in men aged <50 years and >65 years, respectively. In women, prevalence of DU is estimated to be between 4% and 45%. However, more recent studies suggested prevalence rates between 10 and 20%

Until now, DU has only been characterised by the presence of PVR in the absence of BOO. Therefore, the previously published studies on the epidemiology of DU have not considered the coexistence of DU and BOO. Though, urologists frequently see men

with LUTS and PVR after unsuccessful treatment of BOO (for example after transurethral resection of the prostate, TURP) or female patients with LUTS complaints or PVR after urinary incontinence surgery. DU is known to have an unfavourable influence on the outcome of both TURP[37-39] and mid-urethral slings[40].

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Muscle tone - how do you measure – multidimensional

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Aims of this topic:

1. To present the physiology behind muscle tone;
2. To present the current terminology related to pelvic muscle tone;
3. To discuss the current assessment tools and their advantages and limitations.

Pelvic floor muscle (PFM) tone plays a crucial role in several pelvic floor disorders as both increase and decrease in tone are related to differential conditions. Adequate terminology and assessment of tone in light of muscle physiology are thus an essential pre-requisite to better understand the ongoing pathophysiological processes and hence orient treatment accordingly.

The ICS/IUGA standardization and terminology committee has recently proposed to define tone as "state of the muscle, usually defined by its resting tension, clinically determined by resistance to passive movement" [1]. Muscle tone is composed of a passive and an active component [2]. The passive component consists of the viscoelastic properties of the muscle tissue related to several structures [3]: 1- the extensibility of actin-myosin cross-bridges; 2- non-contractile cytoskeleton proteins and 3- conjunctive tissues surrounding the muscle. The active component, consists of physiological contracture (i.e. trigger points (TP)), electrogenic spasms (includes unintentional muscle contraction that can be brought to voluntary control), and normal electrogenic contraction (involves resting activity in normally relaxed muscle and myotatic reflex). Other terms related to tone such as 'stiffness', 'tension', 'spasm' will be discussed.

The available assessment tools present different advantages and limitations. Each method measures different tone components and parameters [27, 28].

The digital palpation is contested for research purposes because of its subjectivity. This tool provides insight into PFM tone, flexibility, relaxation abilities [4-9] by assessing the summative contribution of muscle tone components (i.e., cannot distinguish between specific sources of muscle tone). The ability to detect specific zones of tenderness and TP represents an advantage over the other techniques.

Electromyography (EMG) is the recording of electrical potentials generated by the depolarization of muscle fibers [1]. Viscoelastic properties and physiological contractures are not detectable using EMG. Hence, only one component of muscle tone is assessed (i.e. electrogenic contraction and spasm). Some confounding factors (e.g. artifact, cross-talk and non-linearity with forces) should be taken into account as they are known to interfere with the signal amplitude [10].

Transperineal ultrasound assesses the summative contribution of muscle tone components. However, it is not a direct measure of tone as it corresponds to the visualization of the pelvic structures and does not assess the muscle's resistance to stretch. The main advantage is related to the fact that it is a pain-free procedure (no vaginal insertion is required).[11].

The available intravaginal PFM dynamometers differ in terms of technical issues such as the size/shape and the force vector recorded (anteroposterior, latero-lateral) [12-23]. One main advantage is that they provide direct force assessment. They mainly evaluate tone as the summative contribution of the active and passive components. Some can evaluate tone during a dynamic stretch therefore enabling the assessment at different muscle lengths and the calculation of compliance, stiffness and hysteresis. A methodology combining dynamometry and EMG allowed to discriminate the relative contribution of the passive and active components of tone [24].

The MyotonPro™, an instrument assessing tone in the skeletal muscles [25], has been used recently for PFM assessment by applying pressure externally on the perineum [26]. Its use for assessing the summative contribution of muscle tone components is promising.

There is no gold standard for assessing PFM tone. Most of the tools available measure summative contribution of active and passive components. Given the various advantages and limitations of each tool, a combination of tools is probably the most suitable approach to investigate PFM tone.

This presentation will draw upon these references:

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The use of social media in healthcare

Dr Sajjad Rahnama'i MD. PhD.
Urologist / Assistant Professor
Maastricht University, The Netherlands

Social Media (SoMe) are computer-mediated technologies that facilitate the creation and sharing of information, ideas, career interests and other forms of expression via virtual communities and networks. It consists of user-generated content on the internet and is usually presented on a website or app, although text posts, digital photos or videos can also be included. The applications of SoMe in healthcare and its role in scientific communication represents a growing area of interest. SoMe differ from traditional media (e.g., scientific journals or textbooks) in many ways, including quality, reach, frequency, usability, immediacy, and permanence.

In recent years, we have witnessed an explosion in the development and dissemination of information. We live in a connected world where news, events and information crosses the borders of any country in a matter of a seconds. Internet users continue to spend more time on social media sites than on any other type of site. In addition, there has been a rapid transition from desktop computers to mobile use of social media, which users are accessing when they are "on the go" via tablet computer or smartphone.

Currently thanks to SoMe, healthcare providers are able to share information, stay up-to-date and expand their networks in a faster and easier way. Loeb et al. reported that almost 74% of urologists use some form of the SoMe platform. Facebook is the most used by 89% of urologists. Nowadays Twitter is probably the most appealing platform with more applications for use in a professional way, consisting of the broadest possible opportunities for interesting news, knowledge sharing and networking amongst health professionals.

The most important advantages of SoMe in healthcare include:

1. Dissemination of scientific content
2. Patient education
3. Networking
4. Professional online presence
5. Job opportunities

However, using SoMe in healthcare also imposes certain risks. For example, incorrect or unprofessional content on SoMe could represent a risk to the reputation of professional careers or hospitals. Therefore, it is important that healthcare providers are aware of the appropriate use of SoMe. For these reasons professional organizations, including the European Association of Urology (EAU), have developed guidelines or recommendations on the appropriate use of SoMe. Even teaching activities and educational posts are now more and more seen and used. Wiki, a kind of glossary for correct terminology and definitions can also be spread through SoMe.

To summarize, participants of this workshop session will learn about the various uses of SoMe in healthcare and how to use them effectively. Furthermore, the various advantages and pitfalls of SoMe will be discussed.

Dr Sajjad Rahnama'i MD. PhD.
Urologist / Assistant Professor
Maastricht University, The Netherlands

Your turn to post.
Challenge questions will be provided in the meeting for response by participants.

The Importance of Correct Urology terms - ICS Glossary Preview

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ICS Standardization Steering Committee
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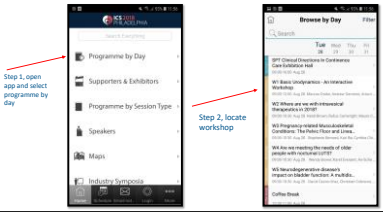
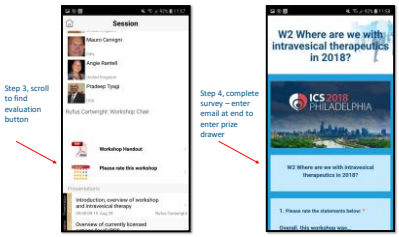
WIN $150 AMAZON VOUCHERS
Please complete the in-app evaluation in the workshop before leaving.





A shortened version of the handout has been provided on entrance to the hall

A full handout for all workshops is available via the ICS website.

Please silence all mobile phones

Please refrain from taking video and pictures of the speakers and their slides.

Please ask questions at the microphone with your name and country

Learning Outcomes

- Learn how ICS standard terms and definitions are created, discussed and refined.
- Recognise the importance of standard terms and how they affect medical practice and patient care.
- Live debate of the definitions of "PFM tone" and "underactive bladder"
- Understand the use of social media in healthcare

Workshop Speakers

Dr Beth Shelly (chair) – USA

Dr Luis Monteiro – Portugal

Dr Desiree Vrijens - Netherlands

Dr Sajjad Rahnamai - Netherlands

Dr Beth Shelly PT, DPT, WCS, BCB PMD

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Affiliations to disclose†:

Analytica – advisory board member
Bewell – focus group participant

† All financial ties (over the last year) that you may have with any business organization with respect to the subjects mentioned during your presentation

Funding for speaker to attend:

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Working group formation

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Topic is identified by the Standardized Steering Committee (SSC)

Scoping document is written

Call is sent out for applications to all ICS members

Applications are collected and reviewed by SSC

Working group is chosen – disciplines, location / language, expertise

Creation of the document

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Goal = 18 months

Research and debate

Consensus on terms and definitions

The Process of Creating Standard Terms

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Review and comment by

- External and invited reviewers
- ICS SSC
- Entire ICS
- ICS EC

Publication by Neurourology and Urodynamics

24 months

But the process does not end there

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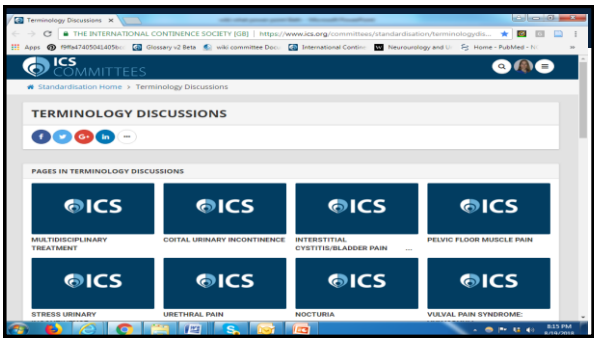
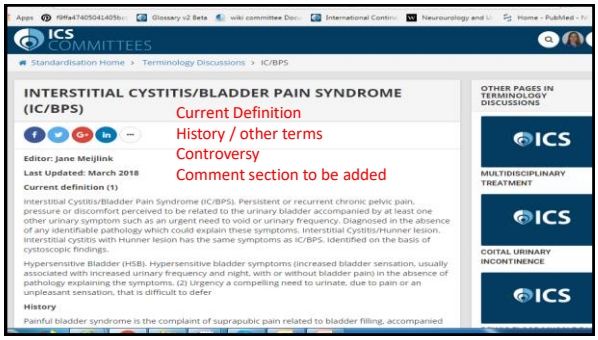
•Key terms are chosen for further review and discussion in

Terminology Discussions

•https://www.ics.org/committees/standardisation/terminologydiscussions

•Further input is solicited and opinions collected





But the process does not end there

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- Provide information to future working groups.
- 10 year review of documents
- We want your input.
- You can influence these terms and definitions.

ICS Glossary of Terminology

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The glossary is a searchable list of ICS standard terms and definitions with link to published document and further discussion.

Early 2019

Standardization Steering Committee

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Be a Part of Standard Terms Join in discussions

Dr Beth Shelly
beth@bethshelly.com
www.bethshelly.com

Luis Abranches Monteiro

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The importance of clear and unambiguous terminology

The impact on the patient of new or changed terminology/definitions in a positive or negative sense, along all links of the **healthcare chain**.

Luis Abranches-Monteiro

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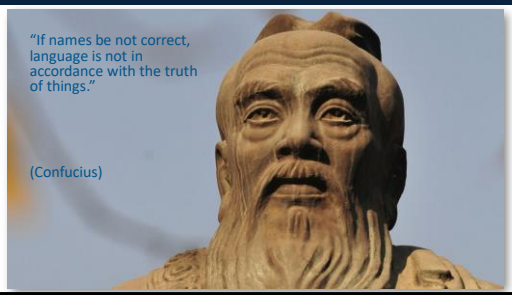

"If names be not correct, language is not in accordance with the truth of things."

(Confucius)

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What do we mean by healthcare chain,
(possibly being infuenced by terminology ambiguities)?

1- Consumer-patient-information
2- Patient-doctor and doctor-to-doctor communication
3- Diagnostic and pathology reports and coding
4- Drug approvals and licensing
5- Reimbursement, disability benefits, insurance
6 - Scientific communication and Research

patient information

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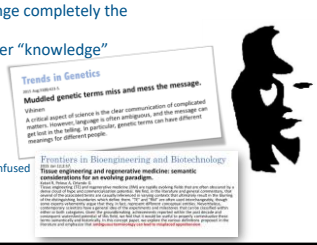
Ambiguous language can change completely the significance

A big problem in new consumer "knowledge" technology


Trends in Genetics

Muddled genetic terms miss and mess the message.

Frontiers in Bioengineering and Biotechnology

Tissue engineering and regenerative medicine: semantic considerations for an evolving paradigm.

Also in LUTS

- Urgency
  - Too many situations can be confused
- Stress incontinence
  - Different concepts of "stress"

Patient-doctor communication

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Terms widely accepted by doctors may not be understood by patients

- Desire to void
  - Is it a sensitive event or a will or intention? Patients would feel a "need" to void.
- BPS or PBS since the name implies that there must be pain, whereas many patients have no true pain and will deny it because they do not consider symptoms such as discomfort, irritation, pressure etc to be pain. -> diagnosed as OAB? -> wrong treatment
- Sensation of incomplete bladder emptying
  - Is it a true sensory experience or a logical interpretation? – "Since I voided twice in a short period of time, I have the sensation or impression that the bladder was not completely emptied"

Doctor to doctor communication

Specialties have their own jargon

Sometimes having an "internal code" not accessible to outsiders

Mistakes can spread to insurance, reimburse and official coding.

Example:

- Urologists call "prostatectomy" to operations that are not prostatectomies (excision of the prostate). Some do not even touch original prostate tissues!
- Urologists around the world, know, accept and… cherish the blunder as their own *trick of the trade*
- **ICD-9 60.2 Transurethral prostatectomy – IS NOT a prostatectomy!!!**

Professionals other than urologists frequently have to contact with this concept and need a clarifying forum

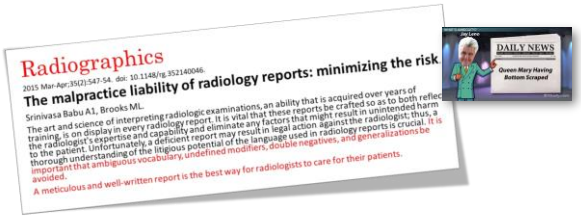
Diagnostic and pathology reports

Although absolute diagnostic certainty in all cases is not attainable, nevertheless, unbridled use of equivocal or ambiguous terminologies may lead to additional, sometimes unnecessary, tests and/or procedures directly or indirectly leading to increase in health care costs, as well as patient and clinician dissatisfaction.

there is significant difference in the interpretation of the degree of certainty between pathology and medicine in terms of "not excluded" (P=0.007) and "cannot exclude" (P=0.03).

Diagnostic and pathology reports

Legal issues



Drug approvals and indications

Nocturia

Urgency and OAB

- Multiple causes and mechanisms, artificially grouped in a symptom and a condition with specific medication approvals

Reimbursement, disability certificates, coding and insurance

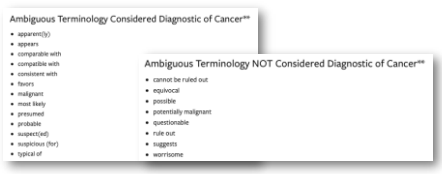
Diabetes insipidus

- In some countries, chronic therapies for Diabetes (mellitus) are fully reimbursed
- Desmopressin, as a drug for Diabetes (insipidus) benefits from this mis…conception

Interstitial cystitis

- when IC (a disease) was changed to BPS (a syndrome) some authorities refused to reimburse treatments licensed specifically for IC!

Reimbursement, disability certificates, coding and insurance



LSU School of Public Health

Scientific communication and Research

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Without agreement on terminology, Meta-analyses are pointless

The inconsistency may be attributed to unreliable urodynamic examination, e.g. inadequate technique, insufficient standardization, susceptibility to artefacts or ambiguous terminology.

Scientific communication and Research

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BPS again:

- Without "pain" patients are not eligible to be included in BPS trials?

Wrap-up

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1-Words, terms and definitions became more important to patients than we anticipated

2- ICS took the lead on defining symptoms, signs and conditions and influenced society in many ways

3- The scientific community recognize some limitations and is ready to always improve terms lead by knowledge but...

4- Some definitions have resulted in unintended changes which can influence patients greatly

5- Modifications and improvements must be used with caution

6- ICS can be THE forum for wide discussion among all stakeholders before significant changes are proposed

Thank you

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Desiree Vrijens

Affiliations to disclose:

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Funding for speaker to attend:

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	Institution (non-industry) funded
X	Travel grant Astellas

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Maastricht UMC+

Underactive Bladder, Really a Problem? Or the New Disease Created By Industry?

Desiree Vrijens, MD. PhD.
Department of Urology
Maastricht University Medical Center
The Netherlands

ICS

What is it?

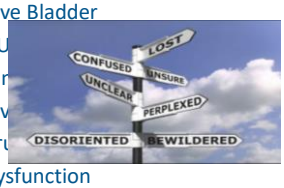
Underactive Bladder

Detrusor U

Bladder Ur

Underactiv

Non-obstru



Voiding dysfunction

Detrusor voiding dysfunction

ICS

DU

DU = ICS definition, 2002

- *'contraction of reduced strength and/or duration, resulting in prolonged bladder emptying and/or a failure to achieve complete bladder emptying within a normal time span'*

Abrams et al. Neurourol Urodyn 2002

ICS

UAB- definitions –working definition

- "A symptom complex suggestive of DU and is usually characterised by prolonged urination time with or without a sensation of incomplete bladder emptying, usually with hesitancy, reduced sensation on filling, and a slow stream"

Chapple CR, Osman NI, Birder L, et al. : The underactive bladder: a new clinical concept? *Eur Urol.* 2015;68(3):351–3

ICS

UAB definitions: ICI-RS

"the perception of detrusor underactivity, characterised by symptoms of prolonged voiding, hesitancy, slow and/or intermittent stream, and/or sensation of incomplete emptying. It is not a pathophysiologic or functional statement"

Smith PP, Birder LA, Abrams P, et al. : Detrusor underactivity and the underactive bladder: Symptoms, function, cause-what do we mean? ICI-RS think tank 2014. *Neurourol Urodyn.* 2016;35(2):312–7.

ICS

UAB definitions

2nd International Congress of Underactive Bladder (CURE-UAB 2) :

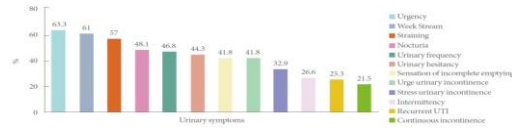
-definition working group ICS + symptoms more common in DU versus BOO

(palpable bladder, always straining to void, enuresis or stress urinary incontinence, or a combination of these)

Dewulf K, Abraham N, Lamb LE, et al. : Addressing challenges in underactive bladder: recommendations and insights from the Congress on Underactive Bladder (CURE-UAB). *Int Urol Nephrol.* 2017;49(5):777–85

ICS

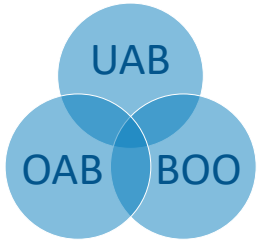
Symptoms UAB



Hoag N, Gani J: Underactive Bladder: Clinical Features, Urodynamic Parameters, and Treatment. *Int Neurourol J.* 2015;19(3):185–9

ICS

Overlap of symptoms



ICS

Symptoms DU-Men

	DU	Normal
decreased/interrupted stream	56%	30%
hesitancy	51%	26%
feeling of incomplete bladder emptying	36%	22%
palpable bladder	14%	1%
absent/decreased sensation	13%	3%

Gammie A, Kaper M, Dorrepaal C, et al. : Signs and Symptoms of Detrusor Underactivity: An Analysis of Clinical Presentation and Urodynamic Tests From a Large Group of Patients Undergoing Pressure Flow Studies. *Eur Urol.* 2016;69(2):361–9.

ICS

Symptoms DU-Women

	DU	Normal
decreased/interrupted stream	29%	4%
hesitancy	28%	9.1%
palpable bladder	3.3%	1.5%
absent/decreased sensation	4.3%	0.8%
enuresis	12%	8.4%

Gammie A, Kaper M, Dorrepaal C, et al. : Signs and Symptoms of Detrusor Underactivity: An Analysis of Clinical Presentation and Urodynamic Tests From a Large Group of Patients Undergoing Pressure Flow Studies. *Eur Urol.* 2016;69(2):361–9.

ICS

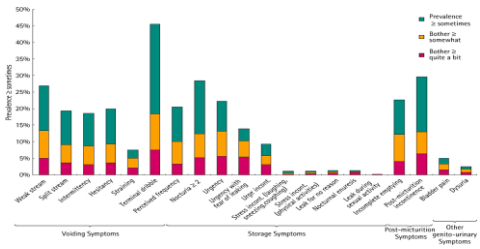
Symptoms DU vs BOO, in men

	DU	BOO
Stress incontinence	25%	3.7%
enuresis	21%	1.8%
palpable bladder	14%	0.6%
absent/decreased sensation	14%	0%
poor stream	56%	82%
hesitancy	51%	69%
urgency	30%	45%

Gammie A, Kaper M, Dorrepaal C, et al. : Signs and Symptoms of Detrusor Underactivity: An Analysis of Clinical Presentation and Urodynamic Tests From a Large Group of Patients Undergoing Pressure Flow Studies. *Eur Urol.* 2016;69(2):361–9.

ICS

The prevalence of lower urinary tract symptoms (LUTS) in the USA, the UK and Sweden: results from the Epidemiology of LUTS (EpiLUTS)

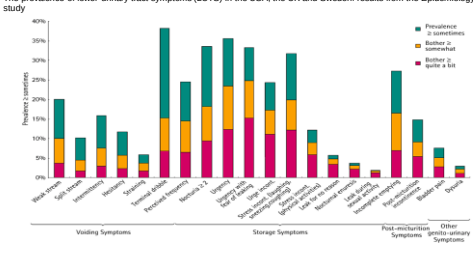


Men

The prevalence of lower urinary tract symptoms (LUTS) in the USA, the UK and Sweden: results from the Epidemiology of LUTS (EpiLUTS) study, Volume: 104, Issue: 3, Pages: 352-360, First published: 09 July 2009, DOI: (10.1111/j.1464-410X.2009.08427.x)

ICS

The prevalence of lower urinary tract symptoms (LUTS) in the USA, the UK and Sweden: results from the Epidemiology of LUTS (EpiLUTS) study



women

The prevalence of lower urinary tract symptoms (LUTS) in the USA, the UK and Sweden: results from the Epidemiology of LUTS (EpiLUTS) study, Volume: 104, Issue: 3, Pages: 352-360, First published: 09 July 2009, DOI: (10.1111/j.1464-410X.2009.08427.x)

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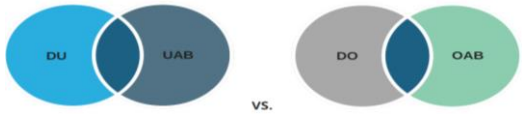
Symptom complex



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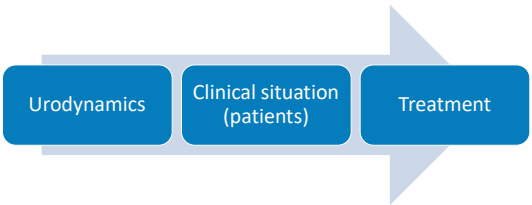
MEDPAGE TODAY

Special Reports

Lowering the Bar: Just Exactly What Is Overactive Bladder?

... A cautionary tale about the way in which a simple question can lead to a new disease

ICS



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Disease created by industry?

- Some authors have COI
- Industry sponsors studies/meetings

ICS

Conclusion

Question: Underactive Bladder, 1) Really a Problem?
2) Or the New Disease Created By Industry?

Answer:

1) We all see these patients
2) UAB = created (but to make the problem understandable, to promote research/development and to be unambiguous)

ICS

Maastricht UMC+

Thank you for your attention!

ICS

Muscle tone – Which term should be used and how do you measure it?

Dr Beth Shelly
Physical Therapist
United States

Aims of this topic:

To present the physiology behind muscle tone;

To present the current terminology related to pelvic muscle tone;

To discuss the current assessment tools and their advantages and limitations.

ICS Definition

Tone:
State of the muscle, usually defined by its resting *tension*

Bo K, et al. An International Urogynecological Association (IUGA)/ International Continence Society (ICS) joint report on the terminology for the conservative and nonpharmacological management of female pelvic floor dysfunction. Int Urogynecol J (2017) 28:191–213.

Doggweiler R, et al. A Standard for Terminology in Chronic Pelvic Pain Syndromes: A Report From the Chronic Pelvic Pain Working Group of the International Continence Society. Neurourol Urodyn. 2017 Apr;36(4):984-1008.

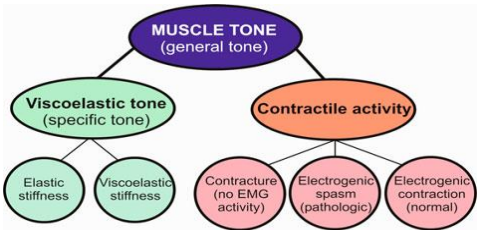
ICS Working Group 16 ICS report on the Terminology for Pelvic Floor Muscle Function and Dysfunction Assessment; Frawley, Shelly, Morin, et al. in process.

Physiology of Muscle Tone

"Muscle tone has two components:

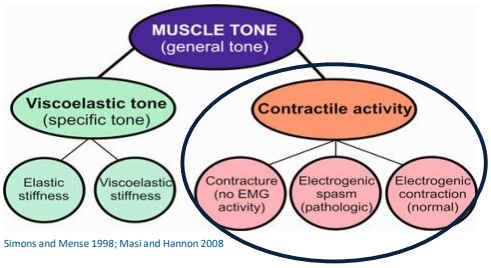
- the **contractile component**, created by the low-frequency activation of a small number of motor units
- and the **viscoelastic component**, which is independent of neural activity and reflects the passive physical properties of the elastic tension of the muscle fiber elements and the osmotic pressure of the cells" (Bo 2017)

Physiology of Muscle Tone



Simons and Mense 1998; Masi and Hannon 2008

Active Component



Simons and Mense 1998; Masi and Hannon 2008

Active Component

"Created by the low- frequency activation of a small number of motor units" (Bo 2017)

Surface EMG activity seen

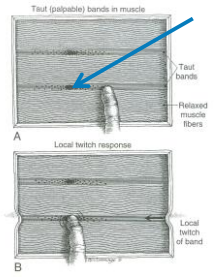
- Normal electrogenic contraction - involves resting activity in normally relaxed muscle and myotatic reflex
- Electrogenic spasms - includes unintentional muscle contraction that can be brought to voluntary control

Active Component

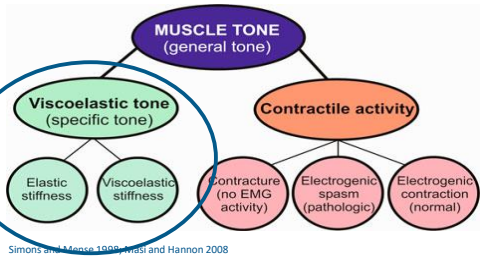
"Created by the low- frequency activation of a small number of motor units" (Bo 2017)

No surface EMG activity seen

- Physiological contracture - i.e. trigger points (TrP)



Passive Component



Simons and Mense 1998, Mense 2008, Mense and Hannon 2008

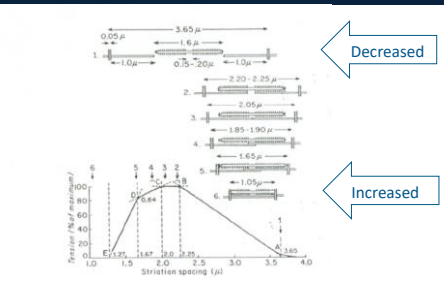
Passive Component

"Viscoelastic component, which is independent of neural activity and reflects the passive physical properties of the elastic tension of the muscle fiber elements and the osmotic pressure of the cells" (Bo 2017)

No EMG activity seen

- Extensibility of actin-myosin cross-bridges
- Non-contractile cytoskeleton proteins
- Connective tissues surrounding the muscle

Length Tension Curve



ICS Definition

Tone: State of the muscle, usually defined by its resting *tension*

Active Component

Passive Component

Terms

Tone: State of the muscle, usually defined by its resting *tension*

"Tension: may have a similar meaning to tone and stiffness."

"Stiffness: resistance to deformation. Passive elastic stiffness is defined as the ratio of the change in the passive resistance or passive force (ΔF) to the change in the length displacement (ΔL) or ΔF/ ΔL. The term should only be used if stiffness is measured quantitatively, such as with the use of instruments such as dynamometry or myotonometry."

Terms

Hypotonicity: a decrease in muscle tone related to either reduced contractile activity and/ or passive tension in the muscle. This term is used to describe decreased muscle tone of neurogenic origin

Decreased PFM tone (NEW) – decreased tone in a patient without a neurological condition.

Footnote- this could also be called non neurogenic hypotonicity

Terms

Transient increased muscle tone (NEW) - increased tone which decreases quickly with verbal instruction and gentle ischemic pressure to the muscle

Terms

Hypertonicity: an increase in muscle tone related to either elevated contractile activity and/or passive tension in the muscle. This term is used to describe increased muscle tone of neurogenic origin

Increased PFM tone (NEW) - increased tone in a patient without a neurological condition.

Footnote - this could also be called non neurogenic hypertonicity

Terms

Underactive PFM - PFM is unable to contract sufficiently or when needed

Overactive PFM - PFM is unable to relax and may contract during functions such as defecation or micturition

Messelink B, Benson T, Bergham B, Bo K, Corcos J, Fowler C, et al. Standardization of terminology of pelvic floor muscle function and dysfunction: report from the pelvic floor clinical assessment group of the International Continence Society. *Neurourol Urodyn*. 2005;24:374–380.

Terms

"Spasm: persistent contraction of striated muscle that cannot be released voluntarily. Spasms occur at irregular intervals with variable frequency and extent, and over days or weeks may lead to a contracture." (Bo 2017) May or may not be painful.

"Contracture: an involuntary shortening of a muscle. Contractures are electrically silent". (Bo 2017) May or may not be painful.

Cramp: a contraction that is painful, reported by the patient

Myalgia: Reproduction of patient's pain on palpation of a muscle.

Many Terms – Thoughtful choice

Tension Cramp Myalgia

Increased tone Underactive
Overactive Decreased tone

Transient increased tone Standard terms

Hypertonicity Hypotonicity

Tone Spasm Stiffness

Assessment of Tone

"There is no single accepted or standardized way of measuring muscle tone, and there are no normative values." (Bo 2017)

"Clinically determined by resistance to passive movement."

Muscle tone is evaluated clinically as the resistance provided by a muscle when a pressure/deformation or a stretch is applied to it;

Assessment of Tone

Muscle tension can be increased or decreased

- Exogenous factors such as the amount of pressure applied
- Endogenous factors such as
  - Thickness/cross-sectional area of the muscle itself
  - Fluid present within the muscle (swelling, inflammation),
  - Position (e.g., standing versus sitting)
  - Increased neural activity." (Bo 2017)
  - Presence or absence of pain

Types of Tone Assessment

Digital palpation
Electromyography (EMG)
Transperineal Ultrasound
Intravaginal dynamometer
Myotometer

Digital Palpation

Benefits

- Easily available in clinic
- Ably to detect specific area of tone change and pain

Limitations

- Subjective (not suited for research)
- Unable to distinguish between sources of muscle tone

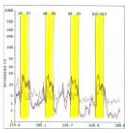
Electromyography (EMG)

Benefits

- Bold display for patient learning
- Can be less invasive with external measurements
- Detects active component of tone including electrogenic contraction and spasm

Limitation

- Does not detect passive component or TrP
- Confounding factors (artifact, cross talk and others) can give false information especially with unskilled professionals



Transperineal and Transabdominal Ultrasound

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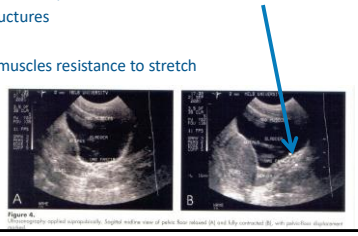
Benefit
- External procedure with less pain
- Visualizes muscle structures

Limitations
- Does not assess the muscles resistance to stretch



Intravaginal Dynamometer

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Benefit
- Provide direct force vector recording – research tool
- Some evaluate tone during stretch and calculate compliance and stiffness

Limitations
- Not clinically available
- May be painful

Combining EMG and dynamometery can discern active and passive components of tone

Myotometer

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Benefits
- Assesses the force to deform tissue and can be used externally on the PFM
- Less pain potential than dynamometer

Limitations
- Not clinically available
- New technology

Questions

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Tension **Cramp** **Myalgia**

Increased tone **Underactive**
Overactive **Decreased tone**

Transient increased tone **Standard terms**

Hypertonicity **Hypotonicity**

Tone **Spasm** **Stiffness**

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The use of social media in healthcare

Sajjad Rahnama'i MD. PhD. FEBU.
- Assistant Professor of Urology

Maastricht University, The Netherlands
- Urologist

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Affiliations to disclose†:

† All financial ties (over the last year) that you may have with any business organization with respect to the subjects mentioned during your presentation

Funding for speaker to attend:

- ☐ Self-funded
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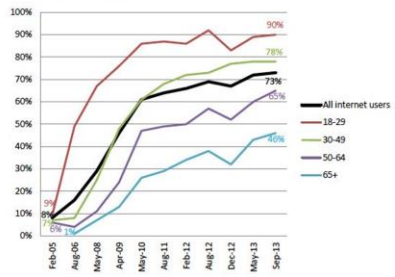

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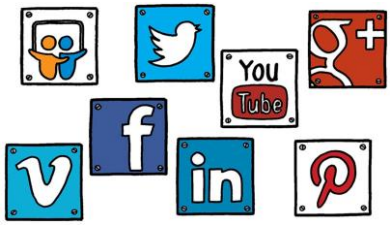

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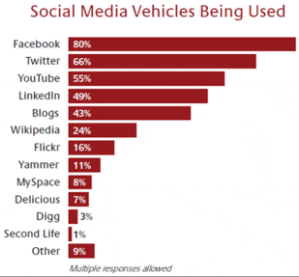

Why use Social Media?

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Why use Social Media?

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You can become the President of USA using Twitter

Why use Social Media?

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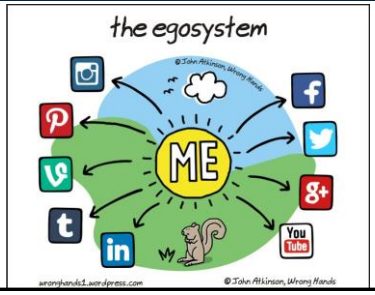
Easy accessible
Very fast
Selectivity
Interactive nature
Networking opportunities



Social media in Healthcare?

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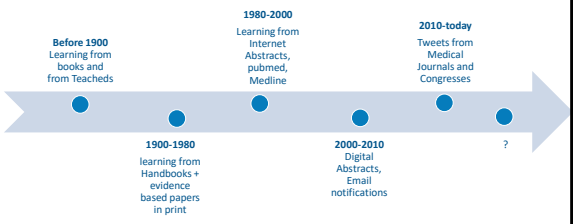
YES
Fast information
Networking
Personal advertisement
Finding jobs
Research

NO
Dangerous
Inappropriate
Privacy

History of information transition in healthcare



Dangers of SoMe !

An Assessment of Unprofessional Behavior Among Surgical Residents on Facebook: A Warning of the Dangers of Social Media

Sean J. Langenfeld, MD, Gates Cook, BA, Craig Sudbeck, BA, Thomas Luers, BA and Paul J. Schenarts, MD

Department of Surgery, University of Nebraska Medical Center, Omaha, Nebraska

TABLE 1. Professionalism Categories

Professional	No evidence of unprofessional content
Potentially unprofessional	Alcohol or tobacco in hand, questionable attire (including costumes and revealing swimwear), polarizing political or religious statements, and weapons
Clearly unprofessional	HIPAA violation, inappropriate language, picture or reference to binge drinking, drug use, racist or sexist content, and sexually suggestive material

HIPAA, Health Insurance Portability and Accountability Act.

TABLE 2. Resident Demographics and Categorizations

Surgical Residents	*n*	Professional, *n* (%)	Potentially Unprofessional, *n* (%)	Clearly Unprofessional, *n* (%)	p Value
Total	319	235 (73.7)	45 (14.1)	39 (12.2)	
Sex					0.93
Male	211	156 (73.9)	26 (12.3)	29 (13.7)	
Female	108	79 (73.1)	19 (17.6)	10 (9.3)	
PGY status					0.88
PGY 1	86	62 (72.1)	12 (14)	12 (14)	
PGY 2	60	46 (76.7)	8 (13.3)	6 (10)	
PGY 3	58	41 (70.7)	10 (17.2)	7 (12.1)	
PGY 4	62	48 (77.4)	7 (11.3)	7 (11.3)	
PGY 5	53	38 (71.7)	8 (15.1)	7 (13.2)	

PGY = postgraduate year.

BJUI
BJU International

Unprofessional content on Facebook accounts of US urology residency graduates

Kevin Koo, Zita Ficko and E. Ann Gormley

Section of Urology, Department of Surgery, Dartmouth-Hitchcock Medical Center, Lebanon, NH, USA

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Table 2 Unprofessional or potentially objectionable content on urologists' public Facebook accounts (n = 201).

Content category*	n	%
Unprofessional content		
Any unprofessional content	27	13.4
Uncensored profanity (T)	13	6.5
References to alcohol intoxication (T)	13	6.5
Appearing intoxicated (I)	8	4.0
Unprofessional behaviour at work or in a professional capacity (I)	5	2.5
Protected health information (I/T)	5	2.5
Unlawful behaviour (I/T)	3	1.5
Offensive comments about colleagues at own hospital (T)	3	1.5
Offensive comments about colleagues at other hospital (T)	1	0.5
Offensive comments about a specific patient (T)	1	0.5

Guidelines on SoMe use for Healthcare professionals

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Plast Reconstr Surg. 2018 Sep;142(3):388e-396e. doi: 10.1097/PRS.0000000000004692.

The Ethical and Professional Use of Social Media in Surgery: A Systematic Review of the Literature.

Bennett KG[1], Berlin NL, MacEachern MP, Buchman SR, Preminger BA, Vercler CJ.

Author information

Abstract

Although certain medical societies have released guidelines on the use of social media, plastic surgery, with its inherent visual nature and potential for sensationalism, could benefit from increasing direction regarding the ethical use of social media. The authors hypothesized that although general platitudes for use exist in the literature, guidelines articulating the boundaries of professional use are nonspecific. Systematic searches of MEDLINE, Embase.com, and Cochrane Central Register of Controlled Trials were completed on January 18, 2017. Searches consisted of a combination of Medical Subject Headings terms and title and abstract keywords for social media and professionalism concepts. In addition, the authors manually searched the three highest impact plastic surgery journals (ending in October of 2017). Two authors screened all titles and abstracts. Studies related to clinical medicine, patient care, and the physician-patient relationship were included for full-text review. Articles related to surgery merited final inclusion. The initial search strategy yielded 954 articles, with 28 selected for inclusion after final review. The authors' manual search yielded nine articles. Of the articles

Dr. M.S. Rahnama'i @Dr_SRah

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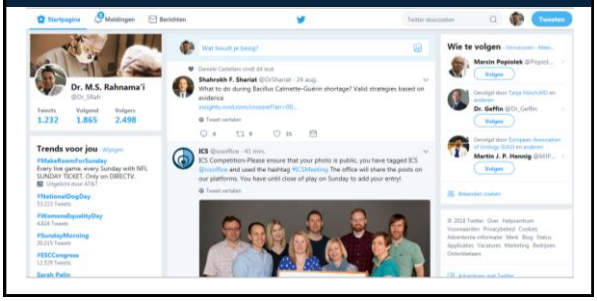

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Twitter at Medical Congresses

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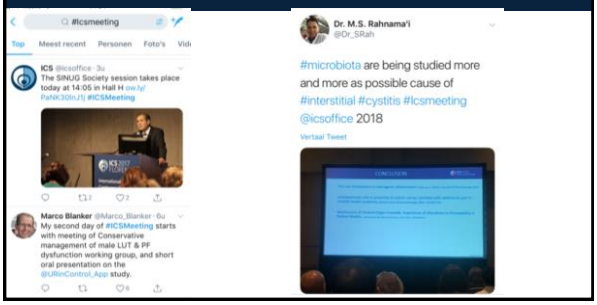

LinkedIn

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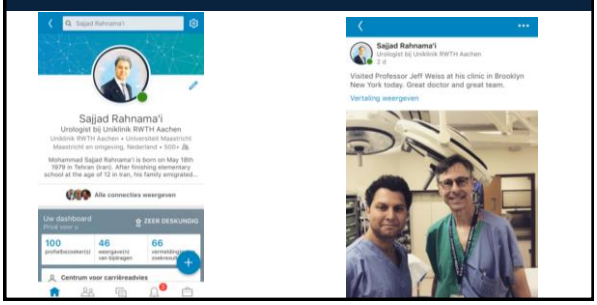

Thank you for your attention

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