



4th Swiss Conference on Standardized Patients and Simulation in Health Care

**10–12 September 2014
Bern, Switzerland**

www.spsim.ch





Welcome

It is our great pleasure to welcome you to the 4th Swiss Conference on Standardized Patients and Simulation in Health Care (SPSIM) in Bern, Switzerland.

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PSIM 2014 brings together national and international experts in simulation methodology and the use of standardized patients in health care. We hope it provides you with many inspiring and stimulating opportunities to exchange across disciplines. We are honored to welcome many well-known keynote speakers working both in research and in the field. Interactive workshops will allow speakers and congress attendees to deepen their interdisciplinary exchange.

Our traditional congress dinner offers a further opportunity to meet colleagues working in the areas of nursing, health and medicine, and to exchange at greater length on developments in the fields of simulation and standardized patients.

This year's hosts – the Berner Bildungszentrum Pflege in cooperation with the University of Applied Sciences Bern (Health Studies Department), the Lausanne University of Health Sciences (HESAV), and the University of Bern's Institute of Medical Education (IML) – are very pleased with the great interest received from all over the world. The event will bring together participants from Australia, Canada, Hong Kong, Japan, the USA, Georgia, the Netherlands, Ukraine, Slovenia, Sweden, Norway, Belgium, Great Britain, Austria, Germany and Switzerland.

Welcome to Bern and to SPSIM 2014!

On behalf of the Scientific Committee

Dr. med. Kai P. Schnabel, MME

We would like to extend our warmest thanks to our sponsors



Conference venue

The conference will be held at the Berner Bildungszentrum Pflege AG.

Internet access / Conference Wi-Fi

SPSIM offers free Wi-Fi Internet access, provided on the ground floor of BZ Pflege premises via the BZ Pflege WLAN.

SSID: BZPflege-SPSIM

Password: SPSIM-2014

Information for speakers

If you are making a short communication or leading a workshop, please bring your presentation to the room 15 minutes ahead of time: assistants will directly upload it to the notebook. If you are leading a workshop and need to print additional material or handouts, the Conference Desk team will be happy to help you.

Posters

If you are presenting a poster, please display it on the ground floor of the BZ Pflege on 11 September in the morning. If you need help, please ask the Conference Desk team.

Berner Bildungszentrum Pflege

Freiburgstrasse 133

CH-3008 Bern, Switzerland

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Breakfast Meeting with the SIMULATION ASSOCIATIONS

12 September, 7:45am to 8:45am

Join us for coffee and croissants on Friday morning from 7.45am to 8.45am: major international simulation associations will be represented and introduce themselves:

- Debra Nestel (Australian Society for Simulation in Healthcare ASSH)
- Karen Lewis (Association of Standardized Patient Educators ASPE)
- Monika Brodmann (Swiss Association for Simulation in Healthcare SASH)
- Stefan Gisin (Society in Europe for Simulation Applied to Medicine SESAM)



Framework program

Congress dinner

11 September 2014 at 7:30pm

The SPSIM 2014 congress dinner will take place in Bern's historic district.

Restaurant Brauerei

Altes Tramdepot

Grosser Muristalden 6
3008 Bern
Tel. +41 (0)31 368 14 15

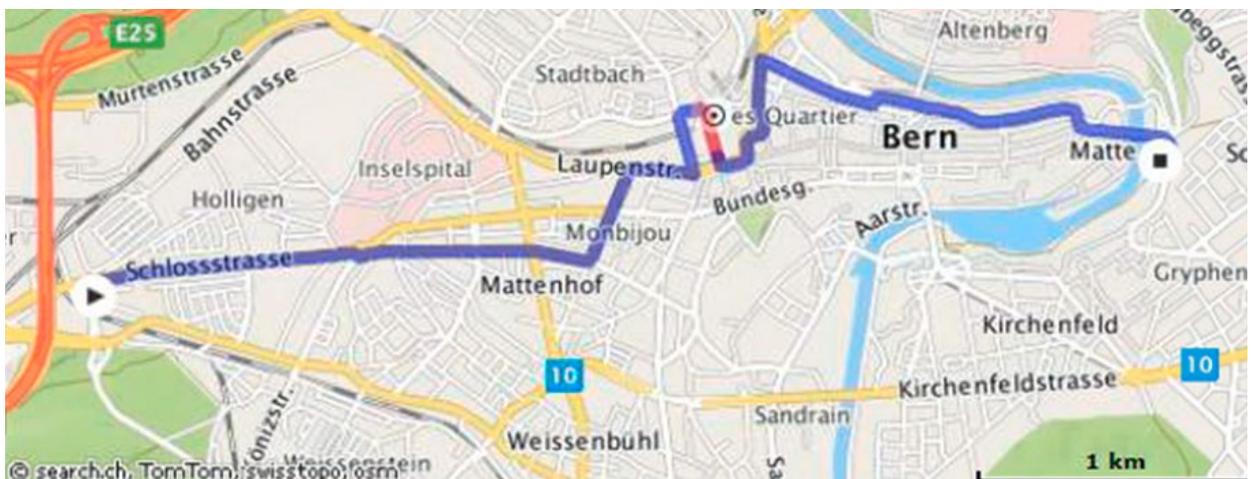


Getting from the Berner Bildungszentrum Pflege to the restaurant Altes Tramdepot

By public transport:

Take tram no. 7 (towards: Ostring) or tram no. 8 (towards: Saali) from "Steigerhubel" to "Hauptbahnhof Bern". At "Hauptbahnhof Bern", take bus no. 12 (towards: Paul Klee Zentrum) and get off at "Bärengraben". The bus stop is located directly in front of the Restaurant Altes Tramdepot. Travel time around 30 min.

By car:



Keynote speaker

Henrike Hölzer

Charité Universitätsmedizin, Berlin Longitudinal Integration of Simulated Patient Scenarios in Medical Curricula

Teaching and Assessing Communication and Teamwork Skills with Simulated Patient (SP) Scenarios. Introducing a Longitudinal Interdisciplinary Curriculum at Charité Universitätsmedizin Berlin

With the start of the Model Medicine Curriculum at the Charité in 2010, a longitudinal KIT (communication, interaction, teamwork) curriculum has been implemented. Students are being taught communication and teamwork skills in 102 units of 45 minutes with 25 simulated patient scenarios over the course



of four years. Two summative OSCE exams assess communication skills and physical examination techniques along the way. The Charité's Simulated Patient Program had to face several challenges in the context of this development.

The keynote will address the demands of

- designing simulated patient scenarios that complement the content of the modules (clinical and basic sciences), increase in complexity, and match the student's progress
 - training faculty and SP in order to ensure high-quality teaching sessions for 320 facilitators and 140 simulated patients for about 4000 appointments each year.
- Finally, we will also discuss the benefits of an integrated curriculum with interdisciplinary SP scenarios and our plans for extra-curricular activities with SPs in the future.

Dr. Henrike Hölzer, M.A. is head of the Simulated Patient (SP) Program at the Charité Universitätsmedizin, Berlin, Germany. She is Chair of the SP Committee at the German Society for Medical Education (GMA) and a member of the Association of Standardized Patient Educators (member of the ASPE International Committee). Her research focuses on communication and social skills in medical education as well as on SP methodology. Her current interests lie in creating and employing complex scenarios and teaching "attitude". Her approach may best be categorized by the keyword "patient-centered".

Rachel Yudkowsky

Associate Professor, Department of Medical Education University of Illinois at Chicago USA

Train the trainer: professional development for SP/Sim faculty and staff

The successful implementation of simulation-based educational programs depends on faculty and staff who are skilled in facilitating learning with standardized patients, mannequins, task trainers and other simulation modalities. Most faculty members have not been exposed to these methods in their own training and may be unfamiliar with best practices of simulation-based education. How can we prepare faculty to develop and deliver simulation curricula? This keynote will analyze some of the faculty development challenges faced by simulation educators in the health professions, provide best-practice guidelines for designing effective professional development programs, and



describe examples of successful professional development programs for SP/Sim educators ranging from half-day workshops to fellowships lasting a year or more. We will also discuss the benefits and challenges of simulation educator certification.

Dr. Yudkowsky is Associate Professor in the Department of Medical Education (DME) at University of Illinois at Chicago (UIC). She serves as Director of the Dr Allen L and Mary L Graham Clinical

Performance Center where she develops standardized patient and simulation-based programs for the instruction and assessment of students, residents and staff. She is active in faculty development for SP/Sim educators for whom she conducts professional development programs ranging in length from an hour to a year. Areas of

research interest include performance assessment using standardized patients and other simulations, designing assessments to promote clinical reasoning, and setting passing standards for performance tests.

Jan-Joost Rethans

**MD, PhD, Institute of Education/Skillslab,
Faculty of Health, Medicine & Life Sciences (FHML),
Maastricht University, Maastricht, the Netherlands**

The CORE program: experiential learning communicative/physical and reflective skills at Maastricht Medical School primarily by using simulated patients.

Communication is a core competency of practising physicians. Training methods for communication should preferably be based on experience-based learning with ample opportunities for feedback.

At FHML, these considerations have resulted in the implementation of a communication skills programme entitled "CORE" where 'CO' stands for 'COmmunication' and 'RE' stands for 'REFlection'. This three-year program for undergraduate medical students is built around individual simulated patient contacts. Emphasis lies not only on what to say, but also on how to say it. Examples of topics addressed in communication skills training include exploratory interview and breaking bad news. Just as skills training, communication skills training increases in complexity over the years.

The CORE program is integrated with other curricular parts, takes place in small groups, and has its own assessment system. During one curricular year, more than 100 student groups (of 10 students plus a teacher) are active in the CORE program, meeting 8–15 times, and totalling about 5000 individual simulated patient contacts.

To enable students to practise, FHML has a pool of around 90 simulated patients.

The presentation in Bern will be a description of the CORE program and will focus on how we structure and plan the simulated patient contacts in such a way that students can maximize their learning opportunities. For example, students are unable to meet a simulated patient without having filled out their individual educational objectives in an electronic system that records all simulated patient contacts. Based on these objectives, students are also invited to write down their SP-feedback questions already before the simulated patient contact takes place. This special educational way of using simulated patients (SPs) has consequences for SP recruitment, SP role training ("everything is real except for the complaint"), SP feedback training ("student first") and SP quality control. In the presentation, each of these SP related consequences will be presented.



Jan-Joost Rethans studied medicine at Maastricht University. After finishing specialist training in family practice, he worked 17 years part-time as a family physician and as a researcher at the Research Institute 'Extra' of Maastricht University. During this period he also worked three years in Norway as a clinician and as a researcher. He has a PhD in Medical Education from Maastricht University (1990, 'cum laude' rating). He delivered 7 PhD students who all conducted studies in the field of performance assessment of physicians, mostly using the methodology of incognito standardized patients. In 1998 he joined the Skillslab of FHML, Maastricht University. Since December 2013 he has held a position as Director of Medical Education Programmes FHML.

He was elected Chair (1998–2004) of the Executive Board of the European General Practice Research Network (EGPRN). In 2004 he joined the Board of Directors of ASPE (Association of Standardized Patient Educators), where he was the initiator and first Chair of the ASPE International Committee. In 2007 he was the initiator and first Chair of the Simulated and Standardized Committee of the Dutch Society of Medical Education (NVMO). He has held positions as visiting professor at Gifu University, Medical Education Development Centre, Japan and at Osaka Medical School, Osaka, Japan (2008). In 2010 he was the first person outside North America to receive the ASPE Outstanding Educator Award. In 2011 he was nominated for the Maastricht University Education Award. In 2013 he was named as the first Howard S Barrows invited presenter by ASPE. Dr. Rethans is author/co-author of more than 70 publications in international peer-reviewed medical journals. The majority of his papers deal with simulated or standardized patient methodology. Jan-Joost Rethans is married with the love of his life and is the proud father of 5 children.

Mary Anne Rizzolo

**EdD, RN, FAAN, ANEF Consultant,
National League for Nursing**

Clinical simulations in healthcare: current issues, possibilities, and opportunities

This presentation will provide an update on several seminal projects that can accelerate the use of simulation in academic and practice settings. They include the US National Council of State Boards of Nursing study on the appropriate percentage



of simulation in pre-licensure nursing curricula, the National League for Nursing's project that explores the use of simulation for high stakes testing, the Society for Simulation in Healthcare's programs that accredit simulation centers and certify simulation technicians and healthcare educators at the basic and advanced levels, and the evolution of standards led by the International Nursing Association for Clinical Simulation and Learning. The potential impact of these and other related projects on the use of simulation in academia and service settings, along with future research questions that need to be explored, will be discussed.

Mary Anne Rizzolo's career has focused on exploring new technologies, determining how they can serve to educate and inform nurses, operationalizing their cost-effective delivery, and disseminating their value for nursing education and practice. These technologies have included award-winning patient simulation interactive videodisc programs, CD-ROMs, and the development of AJN Online, one of the first websites in the world to offer continuing education, journal articles, forum discussions, and other educational and networking opportunities.

Dr. Rizzolo recently retired from the National League for Nursing, but maintains an active consulting practice that includes managing four Laerdal simulation projects for NLN and the HRSA funded Health Information Technology Scholars program.

Sonal Arora

**PhD MBBS MRCS BSc(hons),
Patient Safety Translational Research Centre,
Imperial College London UK**

Assessment tools for simulation-based training – blending scientific theory with clinical application

With evidence to suggest that healthcare is not getting safer, there is a driving impetus to make improvements to both how we work and how we train as medical professionals. However, in order to improve something, we must first be able to measure it. This keynote presentation will outline the principles behind scientific assessment, drawing upon the most recent standards for validity. It will then discuss an application of these to the assessment of both technical skills and non-technical skills, e.g. communication, stress management and teamworking. Examples of assessment tools which the attendees could use in their practice will be provided alongside their benefits and limitations. Finally thoughts will be provided on the key components of a successful assessment process and how to implement this on a practical, yet evidence-based level both in simulation and beyond.



Sonal Arora is an Academic Clinical Lecturer and Colorectal Surgeon at Imperial College, London UK. Sonal leads the research team within the Simulated Operating Theatre at St. Mary's Hospital. Her PhD in Simulation and Patient Safety focuses upon the use of innovations in training and assessment to enhance surgical performance and quality of care.

Sonal's research interests include the assessment and training in non-technical skills, workplace-based learning, surgical stress and interventions to optimize patient safety. She has numerous publications in these disciplines and her work has attracted both media interest and prestigious awards at an international level. Sonal holds the Surgical Education Research Fellowship (awarded by the Association of Surgical Education, USA) and is also a clinical advisor to the World Health Organization.



Conference program

Pre-conference

Wednesday, 10 September 2014

08:30 – 09:00	Registration	Entrance
09:00 – 12:00 MORNING SESSION		
	PRE-CONFERENCE WORKSHOP 1 Monika Brodmann Mäder SASH (Swiss Association for Simulation and Healthcare)	
09:00 – 12:00	Integration of simulation-based education into pre- and postgraduate training	A 002
	PRE-CONFERENCE WORKSHOP 2 Raphaël Bonvin, Kai P. Schnabel Working Group Clinical Skills of the Swiss Federal Medical Examination	
09:00 – 12:00	High-stake clinical skills examinations in Switzerland	A 007
12:30 – 13:30	Lunch	A 008
14:00 – 17:00 AFTERNOON SESSION		
	PRE-CONFERENCE WORKSHOP 3 Karen Lewis, Diane Ferguson, Carine Layat-Burn ASPE (Association of Standardized Patient Educators)	
14:00 – 17:00	How to develop and manage an SP programme.	A 002
	PRE-CONFERENCE WORKSHOP 4 Beate Brehm and Ulrich Woermann	
14:00 – 17:00	Applications of Video in Communication Training	A 007

Scientific program DAY 1

Thursday, 11 September 2014

08:30 – 09:00	REGISTRATION at main reception desks	Entrance
09:30 – 09:45	WELCOME AND INTRODUCTION	Auditorium
09:45 – 11:45 KEYNOTES		
	KEYNOTE 1a Jan-Joost Rethans, Maastricht University, NL Communication curricula with simulated patient scenarios in undergraduate medical education: example from Maastricht	CHAIR Kai P. Schnabel Auditorium
09:45 – 10:30		
10:30 – 11:00	COFFEE BREAK AND EXHIBITION VISIT	A 008
	KEYNOTE 1b Henrike Hölzer, Universitätsmedizin Charité, Berlin, Germany Communication curricula with simulated patient scenarios in undergraduate medical education: example from Berlin	CHAIR Kai P. Schnabel Auditorium
11:00 – 11:45		
12:00 – 13:00	LUNCH AND EXHIBITION VISIT	A 008
13:00 – 13:40 POSTER SESSION 1 (parallel, moderated session) CHAIR Petra Metzenthin		
13:00 – 13:08	(1) Cardot G., (1) Van Gessel E., (1) Picchiottino P., (2) Savoldelli G. Process of an audio-video system and software for image analysis in creating the Centre for Interprofessional Simulation (CiS) in Geneva	Ground Floor Corridor A
13:08 – 13:16	(1) Schroeder G., (2) Karvonen N. Medical and nursing students convey bad news	Ground Floor Corridor A
13:16 – 13:24	(1) Quance, M., (2) Currie, G., (3) Alderson, K. Drama in the classroom: the use of live actor simulation in nursing education	Ground Floor Corridor A
13:24 – 13:32	(1) Keogh, J.J., (2) Loewenhardt, C., (3) Pfeffer, V., (4) Herchet, D., (5) Wald, A. Developing students' clinical competencies through a constructionist learning approach and videography in simulation laboratories	Ground Floor Corridor A
13:32 – 13:40	(1) Truchot-Cardot D., (2) Blampey M., (2) Dechavanne C., (2) Garcin D., (2) Mermety E., (2) Monnet D., (2) Pasquet V. Nutrition and behavioral education for young obese: state of the art and recommendations for creating serious games in this scope	Ground Floor Corridor A



13:00 – 13:40		POSTER SESSION 2 (parallel, moderated session)	CHAIR Ueli Woermann
13:00 – 13:08	(1) Prévot, A., (2)(3) Msc Schouwey, I., (2) Alfonso-Roca, M.T. Assessment of Objective Structured Clinical Examinations (OSCE): do students and examiners agree?		Ground Floor Corridor B
13:08 – 13:16	(1) Tolg, B., (2) Lendemans, S., (3) Merse, S. Virtual Hospital		Ground Floor Corridor B
13:16 – 13:24	(1) Voit S., (2, 3) Nippita S., (2) Haviland M., (2, 3) Perez-Peralta J., (2, 3) Paul ME, (2, 3) Hacker MR A randomized, single blind controlled trial to evaluate the ARMS PelvicSim Mobile Simulator for training in IUC insertions		Ground Floor Corridor B
13:24 – 13:32	(1) Yusaf, M., (1) Purva, M. Can clinical simulation fellowship help in development of non-technical skills (NTS)?		Ground Floor Corridor B
13:32 – 13:40	Metzenthin, P., Roitner, R., Watzek, D. Communication training for health professionals = enhancement of communicative competencies?		Ground Floor Corridor B
KEYNOTE			
13:45 – 14:45	KEYNOTE 2 Rachel Yudkowsky, University of Illinois at Chicago, USA Train the trainer: professional development for SP/Sim faculty and staff		CHAIR Claudia Schlegel Auditorium
14:45 – 16:15 WORKSHOP SESSIONS			
14:45 – 16:15	WORKSHOP Henrike Hölzer, Debra Nestel Multi-source feedback in patient-focused simulation		Auditorium
14:45 – 16:15	WORKSHOP Sonal Arora Debriefing with assessment tools		A 005
14:45 – 16:15	WORKSHOP (1) Kampel B. Improvisation techniques in a simulated patient training using the example of representing pain		A 006

14:45 – 16:15	WORKSHOP (1) Sroka, C. How to improve the quality of SP feedback: a train the trainer workshop	A 007
14:45 – 16:15	WORKSHOP (1) Vergnion, M., (1) Hosmans, T., (1) Lamarche, F., (1) Losfeld, X., (1) Maraite, M., (1) Thomsin, S., (1) van Vuren, S. Hybrid simulation and new technologies	A 002
16:15 – 16:40	COFFEE BREAK AND EXHIBITION VISIT	A 008
16:40 – 17:55	SHORT COMMUNICATION SESSIONS	Chair Patrick van Gele
16:40 – 16:55	(1) Stemmler, F., (2) Stephens, M. Ensuring the safety of patients through the early recognition and treatment of the acutely deteriorating patient	Auditorium
17:10 – 17:25	(1) Demaurex F., (2) Picchiottino P., (1) Meister V., (2) Wiesner Conti J. and Van Gessel E. Does being a standardized patient have an impact on one's health?	Auditorium
17:25 – 17:40	(1) McCabe, A., (1) Dee, H., (1) Goodliffe, J., (1) Radford, A., (1) Jones, K. Bringing medical law to life: a new role for simulation teaching	Auditorium
17:40 – 17:55	(1) Brem, B.G., (2) Schnueriger, N., (2) Hemmi, M., (2) Caspar F., (1) Schnabel, K.P., (1) Woermann, U. Quality assurance of simulated patient feedback in communication training for fourth-year medical students	Auditorium
	rejected by Authors First simulation training for healthcare professionals working at the Pain Center of the Centre Hospitalier de l'Université de Montréal (CHUM.) Preliminary results	
18:10 – 18:40	Guided tour of the Skills Lab Attend a guided tour of our state-of-the-art Skills Lab on the Berner Bildungszentrum Pflege campus; these facilities are an important element of the curriculum for nursing students.	registration desk
19:30	Conference DINNER Altes Tramdepot	



Scientific program DAY 2

Friday, 12 September 2014

07:45 – 08:45	BREAKFAST WITH THE SIMULATION ASSOCIATIONS	Cafeteria
KEYNOTE		
09:00 – 10:00	KEYNOTE 3 Mary Anne Rizzolo, USA Clinical simulations in healthcare: current issues, possibilities, and opportunities	CHAIR Monika Brodmann Mäder Auditorium
10:00 – 10:30	COFFEE BREAK AND EXHIBITION VISIT	A 008
WORKSHOP SESSIONS		
10:30 – 12:00	WORKSHOP Rachel Yudkowsky Developing checklists and other instruments to assess learners in simulation-based educational programs	Auditorium
10:30 – 12:00	WORKSHOP Jan-Joost Rethans Unannounced SPs	A 005
10:30 – 12:00	WORKSHOP (1) Kolbe, M. & (2) Grande, B. Advanced feedback and debriefing techniques: Combining advocacy-inquiry with methods from systemic family therapy	A 006
10:30 – 12:00	WORKSHOP (1) Richter S., (2) Demaurex F. 3-D Moulage in assessment and role-play – a practical workshop	A 007
10:30 – 12:00	WORKSHOP (1) Fortini, C., (1) Viret, F. Feedback in Motivational Interviewing	A 002
12:00 – 12:45	LUNCH AND EXHIBITION VISIT	A 008

12:45 – 13:25		POSTER SESSION 3 (parallel, moderated session)	CHAIR Sibylle Matt Robert
12:45 – 12:53	(1) Husebø, S.E., (2) Evjen Olsen, Ø. Development and implementation of a pilot simulation-based training program on clinical leadership in teams in the ED		Ground Floor Corridor C
12:53 – 13:01	(1) Steinacker, A., (2) Wißner, A. How does the use of videotapes during debriefing session influence the learning outcome of nursing students in the simulation lab?		Ground Floor Corridor C
13:01 – 13:09	Wong, S. L., Tsang, A. Y. K., Tam, C. W. Significance of a simulation training for health assessment among nursing students		Ground Floor Corridor C
13:09 – 13:17	(1) Erci, S., (2) Dravins, C. Developing communication as a professional tool – a way to allow for equivalence		Ground Floor Corridor C
13:17 – 13:25	Z. Vadachkoria., MD, PhD; I. Manjavidze MD, PhD; D. Chitaishvili MD, PhD New challenges for teaching/learning in medical education		Ground Floor Corridor C
12:45 – 13:25		POSTER SESSION 4 (parallel, moderated session)	CHAIR Uwe Weber
12:45 – 12:53	(1) Putscher, C. From labor to birth – simulation training in emergency services (in German)		Ground Floor Corridor D
12:53 – 13:01	(1) Brodmann Maeder, M. Simulation in the wild		Ground Floor Corridor D
13:01 – 13:09	(1) Schlegel, C. SP debriefing with Mama Loo		Ground Floor Corridor D
13:09 – 13:17	(1) Voit S., (2) Dodge L.E., (2) Averbach S., (2, 3) Hacker M.R., (1, 2, 3) Paul M.E. Qualitative assessment of the ARMS PelvicSim™ high fidelity mobile simulator for IUC training within US-based ambulatory reproductive healthcare centers		Ground Floor Corridor D
13:17 – 13:25	(1) Woermann, U., (1) Richter, S., (1) Brem, B. Quality assurance of feedback given by actor patients – video support of self-assessment and trainer feedback		Ground Floor Corridor D
KEYNOTE			
13:30 – 14:30	KEYNOTE 4 Sonal Arora, Imperial College, London, GB Assessment tools for simulation-based training – blending scientific theory with clinical application		CHAIR Stefan Gisin Auditorium

14:30 – 15:45	SHORT COMMUNICATION SESSIONS	CHAIR Carine Layat-Burn
14:30 – 14:45	(1) Meyer U., (2) Matt S., (1) Gerber F., (2) Durrer Ch., (1) Brodmann Maeder M. Interprofessional team training with focus on geriatric patients in the ED using SPs	Auditorium
14:45 – 15:00	(1) Schlegel, C., (2) Bonvin, R., (3) Rethans, J.J., (4) van der Vleuten, C. Video instruction on the accuracy of standardized patients portrayal training: a randomized posttest control group design	Auditorium
15:00 – 15:15	(1) Yusaf, M., (1) Omer, R., (1) Purva M. In situ simulation session: an opportunity to enhance teamwork and leadership skills	Auditorium
15:15 – 15:30	(1) Heberle, W., (1) Gisler, P., (1) Heim, S., (1) Lichtensteiger, S., (2) Metzenthin, P., (2) Matt Robert, S., (2) Watzek, D. Practical knowledge of stagecraft: investigation into its importance in communication training in the health sector (research)	Auditorium
15:30 – 15:45	(1) Brem, B.G., (1) Richter, S., (1) Schnabel, K.P. FAIR_OSCE – Feedback structure for assessment of interactive roleplay in Objective Structured Clinical Exams	Auditorium
15:45 – 16:00	COFFEE BREAK	A 008
16:00 – 17:00	ROUND TABLE: Moderated by Kai P. Schnabel Panel experts: S. Guttormsen (IML, University of Berne), C. Oertle (University of Applied Science), C. Gasser (BAG), S. Gisin (SESAM), F. Gerber (Inselspital), P. Marbet (Bernern Bildungszentrum Pflege) What is the future of simulation-based education?	Auditorium
17:00 – 17:15	CONFERENCE CLOSE	Auditorium

Posters

(parallel, moderated session)

Session 1

P1-1

(1) Cardot G., (1) Van Gessel E.,
(1) Picchiottino P., (2) Savoldelli G.

Process of an audio-video system and software for image analysis in creating the Centre for Interprofessional Simulation (CiS) in Geneva

The objectives of CiS were to promote the achievement of collaborative simulated training programs to optimize the performance and safety of care and help promote the development of existing health structures of care towards more participatory models. Our primary mission was to train 2000 students in pre-graduate, and later extend the training to post-graduate and continuing education. We decided to enhance our educational offer by audio-video system and image analysis software to be in harmony with centres of excellence and in line with international guidelines in terms of educational research in simulation and interprofessional collaborative frameworks. However, we are caregivers with no specialist expertise in this technical area. Our choice was therefore based on ease of use and cost, technical possibilities, quality of training and after-sales service, feedback from users. For the final selection, we tested the different systems in realistic conditions. The most efficient method to assess the ease of use, the adequacy of the system, the level of support required, under real conditions of use. But also test our strengths and weaknesses at this level. Our reflections on selection criteria, actual experiences and our exchanges with various centres have enabled us to make a choice that seems sensible and rational. We also believe that the more important to support our investment was to hire a simulation technician.

P1-2

(1) Schroeder G., (2) Karvonen N.

Medical and nursing students convey bad news

The second interprofessional module about "Delivering bad breaking news" was developed in cooperation between the Careum Foundation, the University of Zurich and the Careum Bildungszentrum. Together, nursing and medical students learn how to break bad news to patients. The interprofessional skills unit and training with a simulation patient form the core of the module. Feedback from students and teachers on the learning arrangement and the learning process is very positive.

P1-3

(1) Quance, M., (2) Currie, G.,
(3) Alderson, K.

Drama in the classroom: the use of live actor simulation in nursing education

Nursing faculty in the Family Newborn course at Mount Royal University, Canada, were disheartened by students' seeming inability to consider and appreciate the complexity of women's lives in the context of the childbearing period. Faculty are also encouraged to incorporate simulation in clinical courses to enhance the learning experience and enrich the students' understanding of the complexity of perinatal care. One faculty member had attended the workshop on Live Actor Simulation at the 2010 Society of Teaching and Learning in Higher Education conference. Following the guidelines presented at this workshop, faculty members designed a standardized patient simulation to reinforce content and allow third year nursing students to practice interpersonal skills for difficult conversations in the perinatal period. The live actor simulations were developed for content areas that relied on interpersonal

skills, traditionally considered by students to be "simple and easy". However, clinical instructors provided feedback that illustrated "simple and easy" interactions could be very stressful, particularly in women's complex social/emotional situations. The two content areas that were chosen were early pregnancy and perinatal bereavement. These times in women's lives can be fraught with complexity and high emotion, requiring skilful intervention by a registered nurse. This presentation will discuss how the live actor simulations were developed for one of the content areas, which has since been used with over 1000 Bachelor of Nursing students. Student feedback regarding this simulation experience and the learning gained by the involved faculty will also be uncovered.

P1-4

(1) Keogh, J.J., (2) Loewenhardt, C.,
(3) Pfeffer, V., (4) Herchet, D. & (5) Wald, A.

Developing students' clinical competencies through a constructionist learning approach and videography in simulation laboratories

Objectives of study Developing complex tasks enabling students to use and reflect theoretical knowledge from different modules in clinical situations developing clinical reasoning skills. Introducing students to new teaching and learning methods, such as "situative learning" and "cognitive apprenticeship". Recording simulation for debriefing. Discussing the students' experience in focus groups and group discussions to develop an evaluation basis based on the research question. **Research questions** Can complex learning situations be developed enabling students to apply theoretical knowledge from all the modules in planning their clinical practice? Can students apply the nursing process during their learning phases? How should the learning milieu be arranged to opti-

mize clinical teaching and learning? **Findings** Phase 1: The scenarios to be used in clinical teaching were planned. These formed the basis for problem-oriented learning. Using scenarios in simulation fosters active and self-directed learning in students. Students learn to assess their own progress as well as appraising learning situations. Teachers could intervene and give feedback, thus reinforcing learning. Preparing students for clinical situations is difficult, but a simulation laboratory provides a safe environment enabling them to make mistakes and learn from them. Developing the scenarios at an increasing level of complexity and as close as possible to reality, clearly and concisely described case. The development oriented itself to the standard set of guidelines for scenario development, such as defining goals, presenting the case, defining roles, providing all relevant information and guidelines for debriefing. Phase 2: Applying the six didactic guidelines during simulation exercises. Students understand the learning processes as well as the learning environment. Phase 3: Evaluating findings. The initial evaluation was conducted using debriefing and group discussion and applying the recorded performances as basis for discussion. Students were given the opportunity to discuss their impressions as well as their feelings during the simulation exercise. In conclusion, group discussions and focus groups were conducted regarding the students' experience in the learning situation. **Conclusion** Originally, the NLN scenarios were translated and used, but it has been found that students prefer to develop their own scenarios, thus demonstrating a higher level of self-directed learning.

P1-5

(1) Truchot-Cardot D., (2) Blampey M., (2) Dechavanne C., (2) Garcin D., (2) Mermet E., (2) Monnet D., (2) Pasquet V.

Nutrition and behavioral education for young obese: state of the art and recommendations for creating serious games in this scope

Introduction Serious games are developed applications from advanced gaming technology, utilizing approaches to design and know-how that are similar to a classic game, but go beyond the single dimension of entertainment. They combine fun and technological springs known from video games with a serious intention of teaching. They have been proven in many applications requiring profound behavioral changes. Serious games are great tools to reach new audiences and especially younger ones. They also help to mobilize certain groups (such as parents) and to pass on messages or knowledge in a manner that is more fun and therefore more accessible and motivating for recipients (children). **State of nutrition and behavioral education** Obesity is the first non-infectious epidemic. Despite numerous prevention campaigns, childhood obesity continues to rise. Changing their feeding behavior does not fall only intellectual understanding but a whole intrinsic parameters: perception of fullness, logistics. Nutrition education is based on two approaches: • The acquisition of knowledge and practices, easy to interpret and use, by children who have only little reliable knowledge. • The "restart" of the management of eating behaviors. For these acquisitions to persist over time, we have to work in depth and repeatedly on the habits of these young patients. **Recommendations for creating serious games** Despite the limited number of experiments (39 articles referenced), the low numbers (30 to 133 children), and a brief temporality (none exceeding one year), the analysis of nutrition and behavioral education experiments based on the use of serious games shows: • Young audiences are extremely impressionable, 90% of them leaving after just 10 minutes, some bad habits like consumption of "junk food" (objective of the game is to ban these foods "bad"). • Behavioral changes (increase in physical activity and decrease

in compulsive snacking) and constitutional changes (modification of the masses of fat and lean) were also observed. This is a great success because patients have found their own solutions rather than the therapist imposing his "diktats" (main source of failure for most schemes in the long term). With this analysis and our expertise in nutrition and education, we advise designers to develop serious games (SG) comprising: – Relevant and varied educational activities: Attractive activities in which the learner has an active role as investigator, and the use of springs teaching such as cooperation or competition. – Constant challenge: Crucial to capturing the attention of the learner. The level of difficulty should increase throughout the SG so that the learner always feels the need to go beyond his/her limits. – Recognition of success: in SG, even more than in a conventional training context, the learner expects to be rewarded when he succeeds. – Attractive game environment: The learner should feel immersed in the game environment and affected by the outcome of the story. An avatar can facilitate the projection on the hero of the story. – A game that surprises: The introduction of visual effects or an unexpected twist in the scenario keeps the learner's full attention. – Freedom of action: For the learner to have the feeling of playing, he must feel free of its shares. The sense that there is no impact on real life is also important. – Custom game features: A game usually gives the player the opportunity to access a personal space containing personal settings. New personal missions to be accomplished must be clearly and personally explained. – A game with suitable skills: The learner has to use the acquired skills to be in connection with the story in order to advance and make progress. It is best to choose a place, a time, and missions in line with the acquired skills and the training context. – A game adapted to the context of training: For learners to understand how the skills they are acquiring are integrated in their global training, the game and its objectives must be clearly defined by the teacher. It is important to integrate phases of debriefing where the teacher can return to the activities performed during the game, identify the skills that have been acquired and discuss

real situations in which these skills can be reused. **Conclusion** Though the experiments were modest in scope, it is permissible to view serious games as educational tools for the acquisition of theoretical and practical knowledge, but also awareness and the ability to decrypt nutritional behavior. Now we hope that research is conducted to provide young patients with optimally designed serious games for the prevention and treatment of obesity: games that are fun, have a lasting impact and present reasonable costs.

Session 2

P2-1

(1) Prévot, A., (2)(3) Msc Schouwey, I., (2) Alfonso-Roca, M.T.

Assessment of Objective Structured Clinical Examinations (OSCE): do students and examiners agree?

Basic clinical skills (CS) are introduced in the University of Fribourg during the third year of the Bachelor of Human Medicine (BMed). CS acquired by students are assessed using a two-hour session of Objective Structured Clinical Examinations (OSCE) of 8 stations with or without simulated patients (SP). This cross-sectional study was designed to compare the perception of the same OSCE session by students and examiners. In June 2013, a self-assessment questionnaire was completed by all students immediately after the OSCE (n=95), as well as examiners during or after their stations (n=54). Answers were ranked using a 2 to 5 response range. Statistics were performed using the χ^2 test of independence. $P < 0.05$ was considered statistically significant. The same proportion of students and examiners considered the OSCE as a good/very good (94.7% and 98.2% respectively, NS) and fair/very fair (90.4% and 98.2% respectively, NS) method of assessment for CS ability, as compared to other exams. Yet students were statistically more stressed than for other exams, and 70.5% of students found the OSCE intimidating. Examiners were very satisfied with their performance as examiners (98.2%), whereas 33% of students were unsatisfied with themselves, which was more than statistically expected. This was confirmed

when 22.7% declared a posteriori feeling insufficiently prepared for the exam, although they considered their amount of work before the exam as sufficient. Yet 98.4% of the examiners considered the students as well/very well prepared. Students assumed that the BMed curriculum did not sufficiently prepare them for the OSCE, whereas the examiners were confident in their teaching. The number of CS workshops during the year and the amount of learning objectives covered by the OSCE were underrated by students, whilst overrated by examiners. Finally, both students and examiners considered that the situations depicted in the stations were close to reality and that the presence of SP was likely to impact the exam. Although they acknowledged the quality of this type of examination, students underestimated their performance and felt that OSCE were a most stressful experience. The presence of SP and examiners was perceived as potentially influencing the outcome of the exam by both students and examiners. Students and examiners agreed on a majority of items assessed in the questionnaire and all viewed OSCE very favorably for the assessment of CS as compared to other exams.

P2-2

(1) Tolg, B., (2) Lendemans, S., (3) Merse, S.

Virtual hospital

Background The simulation patient program of the Faculty of Medicine at the University Duisburg-Essen trains the practical and communicational abilities of students. Essential requirements and professional behavior are trained with actors and guided by experts in a protected environment. Nonetheless experience shows that there are some skills which cannot be trained in this way due to a lack of resources such as free space, actors, or money. Students cannot prepare themselves or measure their results in a standardized way and even in the simulated situations the behavior of the actors differs in details. **Description** The virtual hospital is a learning software that simulates in its first phase the examination of a patient in a virtual surgical emergency ward. In the next phase of the project an emergency room

will be added. Experts can define different courses of disease together with measures to cure them. Guidelines can be defined that allow the software to automatically evaluate the achievements of students working with it. Exams can be planned and executed for lots of students at the same time and in a standardized way, so that the results of all students are comparable. The virtual hospital will be integrated in the curriculum of the simulation patient program as a first step for the students to gain the abilities that are necessary to work with patients. Students can use the software to prepare themselves for the guidelines of the hospital with a set of predefined cases. In a second step students can train their abilities with actors in the simulation patient program. For exams, standardized cases will be defined in the virtual hospital to evaluate students' abilities. **Expected outcome** The virtual hospital will enable students to practice the processes of their hospital at home with predefined patients. The development of their abilities will be recognized by the software; hence the growth of their experience can be visualized. The virtual hospital will be integrated in the curriculum so that the significance of dealing with the software is shown. We expect a better preparation of the students regarding their knowledge of the processes of their hospital. As a first step of the simulation patient program we expect the virtual hospital to lead to better results in the education of students and a measure for their success. **Discussion** There have been many approaches to simulating a hospital within a learning software. Most of them were not appropriate for the education of students due to a lack of authenticity or the inability to use guidelines or cases that are appropriate. During the development of the software a set of virtual patients is created as a base set by a team of experts in medicine and computer science. Additionally, it will always be possible for medics to integrate their cases and guidelines into the software in a standardized way. Cases for exams can be developed and reviewed by a set of professionals and presented to a cohort of students.

P2-3

(1) Voit S., (2, 3) Nippita S.,
(2) Haviland M., (2, 3) Perez-Peralta J.,
(2, 3) Paul M.E., (2, 3) Hacker M.R.

A randomized, single blind controlled trial to evaluate the ARMS PelvicSim mobile simulator for training in IUC insertions

Background Intrauterine contraception (IUC) insertion training can be accomplished using a variety of instructional tools. The objective of this study is to evaluate knowledge, skills and attitudes following training with the ARMS PelvicSim™ mobile high-fidelity simulator compared with a commonly used low-fidelity model.

Study description This was a randomized, single blind, controlled trial. Residents in family medicine or obstetrics and gynecology and students in advanced practice clinician programs who were inexperienced in IUC insertion, defined as having inserted fewer than 5 IUCs, were eligible to participate. After providing written, informed consent, participants were randomly assigned to one of two intervention arms for IUC insertion training: the ARMS PelvicSim™ mobile simulator or a model provided by the manufacturer.

Before IUC insertion practice on their assigned model, participants completed a knowledge test covering topics related to IUC provision and reviewed an online 30-minute didactic module on IUC effectiveness, mechanisms of action, contraindications, side effects and timing of insertion. They then completed a second version of the knowledge test, containing identical questions presented in a different order, and a questionnaire that inquired about self-assessed comfort and competency with IUC insertion and previous experience with IUC insertion and pelvic exams. All participants then reviewed a series of IUC insertion training videos.

Participants were then individually filmed performing IUC insertion using the three FDA-approved devices currently available in the United States (ParaGard®, Teva; Skyla® levonorgestrel intrauterine system, and Mirena® Intrauterine system, both from Bayer). They were randomly assigned to complete three insertions per device in a specific order, using a desktop pelvic model.

Participants were then allotted 30 minutes to practice on their assigned model: a low-fidelity IUC simulation device supplied by a product manufacturer or the ARMS PelvicSim™ mobile simulator, a high-fidelity simulator. Physicians experienced in IUC insertion were available to assist participants as needed during this time.

Following the training, all participants were filmed performing three IUC insertions for each type of device using the desktop model. The order in which they inserted the three different devices was again randomly assigned. Participants then completed a third version of the knowledge assessment, as well as the comfort and competency questionnaire.²

Three months following the first study visit, participants will again be filmed completing a set of IUC insertions on the desktop model as described above. At that time, they also will complete the knowledge test and the comfort and competency questionnaire, which will ask about their IUC insertion experience since the first study visit.

Videotaped insertions from each study visit will be evaluated in a random order after all participants have completed that visit. A trained observer will evaluate each insertion using a standardized checklist.

Outcomes Thirty-one participants were randomized to the ARMS PelvicSim™ and 29 to the low-fidelity manufacturer's model. One participant inadvertently completed IUC training on the model to which she was not assigned and another withdrew before completing the first study visit due to time constraints, leaving 29 participants in the ARMS PelvicSim™ arm and 30 in the low-fidelity arm.

We will compare knowledge, skills, and attitudes assessed at baseline and at the end of the first and second study visits. We will compare the two study arms using an as-treated approach and appropriate statistical methods, based on data type and distribution. All tests will be two sided and p values <0.05 will be considered statistically significant.

P2-4

(1) Yusaf, M., (1) Purva, M.

Can clinical simulation fellowship help in development of non-technical skills (NTS)?

Background Non-technical skills are 'the cognitive, social and personal resource skills that complement technical skills, and contribute to safe and efficient task performance.¹ Examples include communication and decision-making. There is increasing empirical evidence linking non-technical skills to patient safety.² Poor performance of non-technical skills has been shown to be a significant contributor to medical error.³ Objective Hull Institute of Learning and Simulation offers up to eight clinical fellowships in leadership and simulation. Apart from taking lead in designing and implementing education and simulation projects across the region, clinical fellows are also expected to improve their non-technical skills during this post, which can be later transferred to their future work place. **Methods** All the clinical fellows were given a questionnaire at induction to rate their non-technical skills in different areas like leadership, setting effective direction, management, interpersonal effectiveness, fitting in & teamwork, assertiveness, communication, time management, influencing, negotiation & engagement. At the end of the fellowship, an end-of-placement questionnaire was also completed for comparison. **Results** There was a uniform increase in confidence levels for a majority of non-technical skills for all fellows. There was particular improvement in domains like leadership, time management and communication. All the fellows felt that this post had helped them immensely in identifying the importance of developing non-technical skills in their clinical practice. **Conclusion** Non-technical skills training need is well recognized but a recognized framework is needed for their training. We recommend that non-technical skills should be incorporated into the curriculum for all doctors in training.

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P2-5

Metzenthin, P., Roitner, R., & Watzek, D.

Communication training for health professionals = enhancement of communicative competencies?

Background One of the core competencies for health professionals is to be able to use a repertoire of different communication techniques. In order to form a secure relationship the ability to apply the person-centered approach is one of the basic skills. Values such as empathy, genuineness and positive appreciation and their communicative expression play as important a role as for example the ability to structure a conversation, the use of active listening and being aware of non-verbal signals. In addition to these basics skills, advanced skills such as de-escalation techniques in handling aggressive situations or counseling skills in various settings are required. Being able to apply different techniques in a flexible way and deciding intuitively according to the situation demands a solid grounding both in theory and in practice. Nowadays, health professional students are often specially trained in many different communicational settings. But often the theoretical parts dominate; there is a lack of practicing the skills. Frequently, training sessions with colleagues are installed, but the students struggle to take situations seriously. They experience the setting as less realistic and find it difficult to give each other adequate feedback. For this reason, simulation with standardized patients (SP) provides good opportunities to exercise communication skills. After theoretical inputs (e.g. person-centered communication, non- and paraverbal communication or de-escalation techniques like nonviolent communication following Rosenberg) we use standardized patients to practice techniques in special communication trainings. In these trainings, students work in pairs with a professional actor, who combines two roles: the role of a standardized patient and that of a com-

munication trainer. During the training one person acts as a health professional and the other observes the situation. The whole setting is organized in preparation, interaction, video analysis and feedback, normally lasting 70 minutes. During their entire bachelor studies, the students have up to ten trainings where they act as health professionals and up to ten trainings where they are in the observing position. In general, the students evaluate the trainings very positively. Viewing the videos and the extensive feedback sessions are rated particularly positively. In addition, students report that in this setting it is easier for them to put the communication skills into practice. **Research question** Until now, we did not evaluate the enhancement of communication competencies. Therefore, we examined how students assess their competence enhancement through the training. **Methods** The study is based on an evaluation design. During the first semester, all trainings are evaluated. The enhancement of communication competencies was assessed by four items in the bachelor courses nursing, physiotherapy and midwifery. **Results, discussion and conclusion** A total of around 1820 communication trainings, or more than 2000 hours of training per year took place in our bachelor and master programs. At the time of submission of the abstract, our evaluation is still ongoing. The presentation will present the first results of the data, especially from the first semester of training.

Session 3

P3-1

(1) Husebø, S.E., (2) Olsen, Ø.E., (3) Qvindesland, S.A. (4) Lorentzen, H.

Development and implementation of a pilot simulation-based training program in Clinical Leadership in Teams in the Emergency Department

Background: Clinical leadership in teams is a prerequisite for quality of care and patient safety in the Emergency Department (ED). Leadership skills in teams are not well developed among healthcare workers in the ED and result in negative health outcomes, unnecessary deaths,

increased waiting times and poor quality of care. Simulation-based (SB) leadership- and team training can optimize multidisciplinary teamwork, improve patient outcomes and quality of care in the ED. **The purpose** of this study is twofold: 1) To present a reformulation of clinical leadership rooted in a patient-centered interpretation based on four values; trust, quality, responsiveness, and effectiveness in the ED and 2) To describe the development of a clinical leadership in teams course for doctors on call and nurses-in-charge. **Methods:** Six doctors on call and four nurses' in-charge participated in the pilot course. The program was structured in four steps comprising introduction, theory, workshop, simulation and implementation. Six simulation scenarios were developed from actual adverse event reports to obtain clinical relevance. **Results:** Evaluation from the participants reveals that the course offered valuable learning in leadership skills which the current education models and hospital staff training do not focus on. The objectives of the program, roles and responsibilities must be clear and the pre-course information is critical for all participants. The scenarios must have clinical relevance and allow the healthcare workers to remain in their professional roles. Coaching in clinical practice also has to be addressed. **Conclusion:** An innovative clinical leadership in teams program has been developed and implemented in the ED. The reformulation of clinical leadership and the SB program was perceived to add significant value to current education and hospital continued education and staff training schemes. Synthesizing feedback from the participants, and faculty evaluation of the course, the program was improved for the next round of courses. The SB training program will continue and impact on patient outcomes through a continued focus on the core values of trust, quality, responsiveness and effectiveness will be subject to further research and subsequent publications.

P3-2

(1) Steinacker, A., (2) Wißner, A.

How does the use of videotapes during debriefing session influence the learning outcome of nursing students in the simulation lab?

Aim The aim of this qualitative study is to identify whether the use of videotapes during a debriefing session influences the learning outcomes of nursing students during simulation sessions in the laboratories. **Methods** The research was carried out using a grounded theory approach, as developed by Glaser and Strauss. A group of twelve nursing students from the University of Applied Sciences Fulda were observed and partly videotaped during a simulation exercise. The students had to perform an aseptic dressing change on a patient with a suprapubic catheter. A short film of the procedure was made and shown to all students before the exercise, to ensure that all students have the same initial situation. Afterwards debriefing sessions were held with or without videotapes to determine if the outcomes showed any differences. The obtained data was collected as memos and the approach of theoretical coding was used. **Findings** Five groups of factors influencing the learning outcomes were identified. Firstly, visualization helps students to understand what they are asked to perform in the simulation; students could visualize this from the short film at the beginning of the session or from watching other students doing the simulation. All students expressed feelings of nervousness, specifically students performing in front of the group. Also, feelings of self-consciousness about being videotaped and observed by a teacher were expressed. Apart from being nervous some students also felt that too much was expected of them. While some were very unsure about an aseptic dressing change they just felt overwhelmed to change the dressing as a full simulation procedure in which they were asked to consider all aspects of patient care. The students received the idea of using videotapes during the debriefing session very well. Although they were not used to this method, some students thought it was very helpful. In the last part of the theo-

retical coding, the answer to the research question was isolated. It was determined that debriefing is a teaching/learning method that improves the confidence of nursing students in the simulation lab. The use of videotapes during debriefing shows no significant difference to debriefing sessions without them. In conclusion it was discovered that debriefing sessions in the simulation lab are important and should be used regularly.

P3-3

Wong, S. L., Tsang, A. Y. K. & Tam, C. W.

Significance of a simulation training for health assessment among nursing students

Background Teaching and learning strategies are designed to assist students in conducting a comprehensive and systematic health assessment on an individual or a family. Little is known as to whether simulation training can contribute to students' learning over time. **Objectives** This study aims to investigate how much variance in students' learning about health assessment can be explained by the score of midterm health assessment in real time on a standardized patient and a human simulator. **Methods** All students should have completed the course of human sciences with a course score (HSCS) before the enrolment of health assessment. The strategies include a 5-hour simulation training and a 52-hour theoretical input over a 13-week period. The instructions of the simulation training were streamlined and made students know exactly what they were supposed to assess at all times, challenging them to figure out how to assess case by case. The theoretical inputs highlighted the characteristic of growth and development across the life span; as well as how a patient can be assessed. The evaluation of the course consisted of a midterm assessment and a final written assessment. The midterm assessment required the student to conduct a health assessment in real time on a standardized patient and a human simulator as a midterm assessment score (MAS). After a 16-week period, a final written assessment (FWA) on health assessment knowledge and problem-solving on 3 case scenar-

ios evaluated students' learning in health assessment. **Participants:** A sample of 189 Year-2 undergraduate nursing students aged 20–24 was enrolled and completed the course of health assessment. **Results** The FWA had a passing rate of 98.4%. Hierarchical multiple regression was used to explain the FWA with independent variable of MAS, after controlling for the influence of the HSCS and students' gender. The HSCS and students' gender were entered at step 1, explaining 28% of the variance in FWA. After entry of the MAS in step 2 the total variance explained by the model as a whole was 31%, $F(3, 185) = 27.4, p < 0.001$. **Discussion** The simulation training was designed to allow students to reconstruct what they have learnt in the health assessment, practice physical assessment skills, and train their problem-solving skills. At midterm, students participated in the MAS that made a significant explanation for the variance in FWA. The simulation training could consolidate students' learning over a 16-week period. **Conclusion** Simulation training had an impact on students' learning in health assessment when the influence of human sciences and students' gender was controlled.

P3-4

(1) Erci, S., (2) Dravins, C.

Developing communication as a professional tool – a way to allow for equivalence

A course on acquired speech and language disorder in adults was subject to criticism and poor evaluations. The class was judged to be theoretically overloaded, not linking theory and practice. A thorough evaluation was launched, and during the discussions on possible improvements a student with previous acting experience suggested the method of SP. A teacher with acting and directing experience was appointed to implement the scheme. A literature search revealed that there were few publications on the employment of SP in speech pathology courses^{3,2,5}. The aim of the initiative was to increase the constructive linking between learning activities, to increase student motivation and to endow students with equal opportunities to face typical clin-

ical presentations¹. A second aim was to investigate how professional actors can work in education in the field of speech and language pathology. Initially, goals were set for portraying communication disabilities according to the course objectives, and further to provide clarity regarding the impact on activity and participation aspects for patients. Six iconic patients with heavily impaired verbal presentations of were created. Much care was devoted to achieving believable characters with respect to gender, age, social situations etc. Three professional actors were recruited. Ten hours of preparation including video presentations of clinical examples and rehearsal with assessment materials was assigned to each actor. A tutor in speech and language pathology provided assistance during rehearsals. During the two initial weeks of the course, the students (n:26) were presented with referrals and time to plan the sessions. The students met all of the SP, each student getting six hours of SP contact in groups (regular PBL group) and six hours of observation through a one-way screen of other students' meetings. In total, each individual spent twelve hours of "SP-time". In addition, the students wrote journals. These records were kept to be used as PBL-cases. During the course activities following the "SP-weeks", teachers included reference to the characters' syndromes and life situations as examples in lectures and exercises. In the final PBL-case, information was provided on the condition of the SP six months after the first assessment. During this activity, students had access to the record of another PBL-group. Following the examination where 23 students passed an evaluation, a questionnaire with ten items of 5-point Likert scale, and with nine items of opened questions, was distributed. The result of the survey shows that 72% were satisfied or very satisfied with the course activity. In the ranking of the SP activity in comparison with other learning activities, SP was rated as the third most important learning activity out of seven, headed by practice and lectures. In the analysis of free comments, it was shown that students were largely satisfied with the arrangement of the learning activity. Credibility in design was judged to be high and the characters

were assessed as believable and presenting authentic clinical pictures. Students reported a reduced fear of seeing real patients. They wanted more supervision by a tutor at the meeting with SP. It turns out it is a worthwhile step which prepares students to meet with real patients. This part contributes to strengthening the link between theory and practice. The encounters with SP provided a much better preparation than attendance as observers in clinical settings. Since the diagnoses the SPs portrayed display complex symptoms related to communication, physics and life situations, it is essential that professional actors portray SP to achieve consistency regarding clinical presentations and the delivery of consistent performances over many consultations⁴.

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P3-5

Z. Vadachkoria., M.D, PhD; I. Manjavidze M.D, PhD; D. Chitaishvili MD, PhD.

New challenges for teaching/learning in medical education

Background Medical education greatly depends on outcomes and competencies, so theoretical knowledge alone is not enough for successful clinical practice. Clinical skills, including communication skills, have become an essential part of medical education worldwide and based on the Medical Educational Program Branch Characteristics of the Republic of Georgia, they are already integrated in curriculums of Tbilisi State Medical University (TSMU). The survey at the Clinical Skills Centre of TSMU was conducted to assess the experimental learning of communication among students. **Research question** To assess experimental learning, offered at the Clinical Skills Centre (TSMU) during a communication lesson based on different styles of medical education: mini-lecture, case discussion in small groups, role-play and debriefing. **Method** Participants of this survey were 6th-year students at TSMU Faculty of Medicine (n=207). At the beginning of the lesson, general information about communication skills and different models of communication were presented by the lecturer. Specifically, the Calgary Cambridge Questionnaire Interview Guide was reviewed focusing on students' preparation and readiness before the simulation/role-play. Afterwards different cases were distributed to small groups (there were two small groups of 5-7 students). The real patient data and Digital Anatomy Library cases had been loaded into the "Anatomege" Table. The students had a chance not only to view pathologies or abnormalities, anatomical variations, fractures, or cardiovascular conditions or diseases, but also X ray, CT and MRI scans of the cases that they had received to study and prepare. As a result, a more realistic environment was created for them and therefore their role-play became more practical. The students were given 20 minutes to discuss these cases in small groups and to prepare the scenario for the role-play that should be focused on communication skills. While members of the first group were role-playing, mem-

bers of the other group acted as observers and vice versa. During the role-play, one student played the role of the simulated patient and the other acted as a physician. Onlooking, so-called non-participant students, were instructed on what to look for. Afterwards there was a debriefing and the facilitator provided additional feedback. Simulation cases ran for 20–25 minutes followed by 30 minutes of debriefing. At the end, students were asked to evaluate the lesson with the help of questionnaires.

Results According to students' feedback, the above-mentioned experimental learning method was assessed very positively. They noticed that such learning was preferable for them, maximizing their learning results. Overall, ratings were "good" to "excellent". Feedback from participants described benefits such as increased confidence, engagement, and active learning.

Conclusions Many students think that they are inadequately trained in history-taking, physical examination, in other words that they don't possess sufficient clinical and communication skills. Using different styles of learning – simulation-based lessons with role-play, discussions in small groups, debriefing etc – as well as using new technologies like the "Anatome" Table has demonstrably led to improvements and has been proposed as a technique to bridge the educational gap.

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Session 4

P4-1

(1) Putscher, C.

From labour to birth – simulation training in emergency services

Often, emergency services are called to a woman in labour when transport to the hospital is no longer possible. Emergency service workers are then responsible to assist the woman in childbirth. This requires obstetric knowledge and practical experience. The Institute of Midwifery and the Emergency Services of the Kantonsspital Winterthur have therefore set up and carried out advanced training with obstetrical input, a workshop and simulation training.

P4-2

(1) Brodmann Maeder, M.

Simulation in the wild

Simulation in prehospital emergency medicine has a long tradition: in earlier times, simple manikins allowed emergency medicine teams to train CPR algorithms during so-called "megacode" trainings. In the meantime, techniques have grown in number and complexity. The author will provide insights into the world of simulation for different healthcare professionals: interprofessional and interdisciplinary shockroom simulations, training of physicians and mountain guides in mountain medicine courses in Switzerland, training of helicopter rescue teams in Switzerland and in Nepal. Opportunities and risks will be discussed. As these activities sometimes take place in challenging environments, they should always keep in mind the "KISS" principle ("Keep It Simple and Safe").

P4-3

Schlegel, C.

SP debriefing with Mama Loo

SPs have just completed a difficult scenario, one that was stressful and exhausting. How can they leave the role behind and not take it home with them? There is no single standard answer to how to

"come down from" or "shake off" a role. At the School of Nursing in Bern, Switzerland, "Mama Loo", a song from the seventies, is used to debrief the SPs. The song is played after each OSCE, helping SPs to shake off the role they were playing. With the help of a survey, it was observed that most SPs liked debriefing with the song "Mama Loo". We conclude that music could be a tool for SP debriefing.

P4-4

(1) Voit S., (2) Dodge L.E., (2) Averbach S., (2, 3) Hacker M.R., (1, 2, 3) Paul M.E.,

Qualitative assessment of the ARMS PelvicSim™ high fidelity mobile simulator for IUC training within US-based ambulatory reproductive healthcare centers

Background The goal of this cross-sectional study is to determine the comfort, competence and value of using the ARMS PelvicSim™ (PelvicSim), a high-fidelity mobile simulation model, to train clinicians on intrauterine contraceptive (IUC) provision. While low-fidelity simulation exists for IUC training and mainly consists of desktop models provided by the manufacturers, the PelvicSim is the only high-fidelity mobile IUC training model currently available. Simulation as a training modality offers a risk-free/stress-free standardized environment, and it does not endanger patient health; high-fidelity simulation has the added advantage of providing measures of clinical competence and immediate feedback, and it allows practice of discrete tasks and skills.

Study description This project consisted of a self-administered survey completed by US-based clinicians who work in ambulatory reproductive healthcare clinics and participated in the PelvicSim training program from January 2014 through July 2014. The survey was pilot tested and revised based on feedback. Participants had a choice of completing the evaluation on paper or online via REDCap, a HIPAA-compliant electronic data capture system. The survey instrument collected information regarding demographics, prior experience with IUC insertion, self-perceived competence and comfort level inserting IUCs pre- and post-training on the PelvicSim, and

opinions about the value of the PelvicSim simulation model. The PelvicSim training program consisted of the following three components: 1) completion of an online IUC e-learning series, 2) an in-person didactic session on evidenced-based best practices in the provision of IUC services, and 3) a hands-on practicum using the PelvicSim mobile simulator for comprehensive IUC training. The first two components of the training curriculum were optional, but all participants trained on the PelvicSim, including practicing insertion of the three types of IUC devices currently available in the United States [(LNG 14, Skyla (Bayer), LNG 20, Mirena, (Bayer), and the copper T380A (Teva)]. The institutional review board determined that this project did not qualify as human subjects research and thus did not require IRB approval. Data are presented as n (%) or median (interquartile range).

Outcomes are all self reported and include learner comfort and confidence, perceived skills transfer from simulators to live patients, and value of the PelvicSim as compared to IUC manufacturers' models.

Outcomes/Discussion One hundred forty participants were offered and completed the survey at the completion of the PelvicSim training. Respondents were primarily female (96%) and nurse practitioners (66%) and had been in practice for a median of 2.0 (1.0–4.0) years. Most (about 80%) respondents reported prior experience inserting the copper and LNG20 devices, but only 2% had inserted the LNG14 device. All participants indicated that they would recommend the PelvicSim for IUC training. Nearly all (95%) participants reported that the PelvicSim is a better method to teach IUC insertion compared with the manufacturers' models, with 81% reporting that it was "much better" and 14% reporting that it was "a little bit better."

We asked participants to report how competent they felt inserting IUC devices before and after the PelvicSim training (not at all competent, competent with assistance, independently competent for simple insertions only, independently competent for all insertions). For insertion of all three IUC devices, participants reported feeling more independently competent following the training on the

PelvicSim. Data regarding insertions of the LNG14 showed the largest impact, with only 17% of participants reporting being independently competent pre-training compared to 50% who reported this post-training. The corresponding change pre- and post-training was less for the LNG20 (74% to 84%) and copper device (72% to 81%).

When asked to identify levels of comfort for all components of IUC insertion addressed by the PelvicSim training, 77% of participants reported an increase in levels of comfort with regard to minimizing patient pain, with 35% of the participants reporting greatly increased comfort levels and 42% reporting slightly increased comfort levels. The majority of participants also reported increased levels of comfort following the use of the PelvicSim with regard to minimizing pain on a live patient (77%), LNG20 insertions (76%), copper IUC insertions (72%), and with inserting IUCs on a live patient (69%).

Participants also were asked to assess the value of the training components of the PelvicSim using a 5-item Likert scale. Ninety percent of participants reported that the IUC insertion activities on the PelvicSim were "valuable" or "very valuable." Most respondents also indicated that the video playback feature (82%), simulated patient comfort level (83%), photos of the insertion path (85%), and feedback metrics (88%) were "valuable" or "very valuable." In summary, the clinicians in this study reported increased competence and comfort regarding IUC insertion after training on the PelvicSim. The change in the proportion of participants feeling independently competent before and after training was larger for the LNG 14 than for the other devices, perhaps because the LNG14 is newer to the U.S. market. All participants reported they would recommend the PelvicSim as an IUC training tool, and nearly all participants reported the PelvicSim was a better method for teaching IUC insertion compared to the IUC manufacturer models.

P4-5

(1) Woermann, U., (1) Richter, S., (1) Brem, B.

Quality assurance of feedback given by actor patients – video support of self-assessment and trainer feedback

Background Medical students of the University of Bern receive communication training with actor patients from the fourth to the sixth year of their education. In the training, they are confronted with difficult situations such as breaking bad news or dealing with an angry patient. Students get feedback on their performance from actor patients only. This is not an easy task. Therefore, actor patients as well as their trainers want to know how well they do and how they can improve. **Description** A video management system based on AAI and SWITCHcast allows for an automatic upload of videos of the encounter, making them accessible in our Learning Management System ILIAS to the involved student only. The actor patients also receive access to their videos by becoming members of a Virtual Home Organization and being attributed the role of tutor. Actor patients are supposed to watch their videos and to choose a video in the early phase of the training period for discussion with the trainers. They are invited to choose the topics they want to address. We plan to evaluate the experience of the actor patients via a questionnaire asking whether they consider it to be of value and whether they have suggestions for improvement. **Expected outcome** We expect to improve the quality of feedback given to medical students by actor patients. The development of a process of constant quality control based on our video management system is our main goal. The exchange between trainers and patient actors will help to establish our quality assurance program. **Discussion** If communication training is based on feedback given by actor patients, the quality of this feedback is of great importance. Our video management system allows us to give Internet based access to the videos to students, patient actors and trainers in an easy and safe way. It is an ideal technology to develop a quality assurance program for the feedback given by our patient actors.



Short communication

Thursday, 11 September 2014

SC1-1

(1) Stemmler, F., (2) Stephens, M.

Ensuring the safety of patients through the early recognition and treatment of the acutely deteriorating patient

Objectives The main aim will be to develop clinical competence in recognizing and responding appropriately to the acutely deteriorating patient. It is envisaged that the students will be able to apply clinical decision-making in the assessment and management of deteriorating patients, using clinical simulation. **Implementing** This program has been implemented for the second time during February 2014 at the Fulda University of Applied Sciences. Students and lecturers from 7 countries received lectures on the acutely deteriorating patient, and in simulation laboratories, the content was demonstrated in simulation exercises. The students had the opportunity to go through 5 work stations covering the content of the ABCDE Assessment strategy. They were also taught to communicate appropriately with other health care members using the SBAR method of communication. Students had the opportunity to go back to the laboratories to practice during the ensuing week, and after a week summative OSCE examinations were held, where each student had the opportunity to demonstrate his or her skills. **Findings** Students learned in a multi-cultural environment, which sensitized them to the different approaches used in recognizing the acutely deteriorating patient in different parts of Europe. The differences in nursing practice became clear, and that enabled students to think about solutions for their own problems in clinical practice. The simulation exercises gave them the opportunity to practice new skills in a controlled and safe environment. They learned that

making a mistake under these circumstances will enhance learning, leading to improved clinical competencies. The summative OSCE examinations helped them identify their own learning needs, as well as the areas where they need to improve their clinical performance. The program is currently being evaluated and it is hoped that its findings will result in a publication. An article on the differences in nursing with special reference to specialization has been submitted with all the participating countries involved in developing the paper. **Conclusion** This program gave students from across Europe (and the USA) the opportunity to learn together, but also to exchange cultural views on nursing care in different societies. The program has been a huge success. **Acknowledgement** The program was funded by the ERASMUS Lifelong Learning Programme.

SC1-2

(1) Demarex F., (2) Picchiottino P., (1) Meister V., (2) Wiesner Conti J., Van Gessel E.

Does being a standardized patient have an impact on one's health?

Introduction The standardized patient program of the Faculty of Medicine of Geneva exists since 1995. Having started with about 10 standardized patients, working on a program of clinical skills at 10 half days per semester, we currently have 140 active patients in our pool, with an activity that has been expanded to approximately 600 hours of training per year. Some participants in our activities have been there since the beginning of the program. Their involvement in teaching and assessment has also increased over the years, and they substantially contribute to education in both the clinical skills and clinical competences programs of the bachelor (Fac Med and HEdS) and master years (Fac Med, Psychiatry); since 2011, they have

participated in the federal board exams for doctors. Activities of our SP program have extended to education within the HEdS since 2013. Through focus groups, several studies have evaluated the impact of PS activity on the health of people playing the roles without evidence of significant adverse long-term effects (1,2). Our goal is to explore the impact of PS activity on the health of people in our pool of standardized patients, with a 15-year scope of activity. **Method** A questionnaire divided in 3 topics was used: demographics (sex, age, profession, motivation for the program, starting date), data on the evolution of their health (change in behavior etc.), and data on the use of their "medical" knowledge for themselves and their entourage, as well as any perceived positive or negative effects. **Results** Ongoing, will be presented at the Congress. **Discussion** Our recruitment process has clearly evolved over the last 15 years, in order to better know the state of health of our SPs and mainly to avoid putting them in too "close to life" situations. Our assumption is that regular and prolonged practice as a SP can eventually cause fears about diseases and have an impact on the health of the people involved, but can also have a positive impact on self-care. We wanted to explore this specific aspect using a questionnaire within our pool of SPs.

SC1-3

(1) McCabe, A., (1) Dee, H., (1) Goodliffe, J., (1) Radford, A., (1) Jones, K.

Bringing medical law to life: a new role for simulation teaching

Background and purpose The value of simulation in teaching the management of medical emergencies is widely recognised and well integrated into both undergraduate and postgraduate curriculums. The use of simulation in teaching the management of legal and ethical issues is an innovative

but untested development in simulation teaching. This study investigates the impact of simulation teaching applied to this new context. Research suggests that while doctors face ethical dilemmas on a daily basis, they often feel ill prepared for these issues on the wards¹. While students receive teaching on ethics and law at medical school, much of this is theoretical in nature². Simulation teaching offers an exciting opportunity to provide exposure to these difficult issues in a safe and educational environment. Debriefing on realistic experience allows reflection on important legal issues and highlights the relevance of theory to everyday practice. Methodology Simulation scenarios were developed for medical students based on ethical issues commonly encountered amongst junior doctors such as maintaining patient confidentiality, treating patients lacking capacity and seeking informed consent³. Actors were used to play the parts of patients. Students were asked to evaluate their confidence in their theoretical understanding of legal and ethical issues and their ability to apply these in practice. Pre and post teaching confidence levels were rated using a 10-part Likert scale. **Results** 7/33 students agreed and 26/33 students strongly agreed that simulation teaching was a useful way of learning about medical law and ethics. 33% of students (n=33) agreed and 66% of students strongly agreed that simulation teaching provided them with the skills to approach ethical issues on the wards. In managing a confused patient without capacity, there was a 3.0 average increase in confidence following the session ($p < 0.0001$). In managing self-discharge against medical advice, there was a 3.3 average increase in confidence following the session ($p < 0.0001$). In respecting confidentiality when talking to a patient's family, there was a 2.7 average increase in post-session confidence ($p < 0.0001$). **Conclusion** Simulation teaching has long been recognized as a valuable way of teaching practical skills, communication skills, and team working⁴. This study demonstrates that the benefits of simulation may successfully be used to develop teaching in medical law and ethics. While this has been highlighted as an area of weakness by students, simulation teaching offers a

valuable opportunity to bridge the gap between legal theory and clinical practice.

References ¹ Quarini, C. (2010) A day in the life of a junior doctor: everyday ethical encounters, *Postgrad Med J* 86: 632-635

² Sokal, D, Doyal, L and Doyal, L (2010) Law and the Junior Doctor, *Postgrad Med J* 86: 629-63

³ McDougal, R, Sokol, D (2008) The ethical junior: a typology of ethical problems faced by house officers. *D J R Soc Med February*; 101(2): 67-70.

⁴ Paskins, Z, Peile, E (2010) Final year medical students' views on simulation-based teaching: A comparison with the Best Evidence Medical Education Systematic review

SC1-4

(1) Brem, B.G., (2) Schnueriger, N., (2) Hemmi, M., (2) Caspar F., (1) Schnabel, K.P., (1) Woermann, U.,

Quality assurance of simulated patient feedback in communication training for fourth-year medical students

Introduction In our program, simulated patients (SPs) give feedback to medical students in the course of communication skills training. To ensure effective training, quality control of the SPs' feedback should be implemented. At other institutions, medical students evaluate the SPs' feedback for quality control (Bouter et al., 2012). Thinking about implementing quality control for SPs' feedback in our program, we wondered whether the evaluation by students would result in the same scores as evaluation by experts.

Methods Consultations simulated by 4th-year medical students with SPs were video taped including the SPs' feedback to the students (n=85). At the end of the training sessions students rated the SPs' performance using a rating instrument called Bernese Assessment for Role-play and Feedback (BARF) containing 11 items concerning feedback quality. Additionally the videos were evaluated by 3 trained experts using the BARF. **Results** The experts showed a high interrater agreement when rating identical feedbacks (ICCunjust=0.953). Comparing the rating of students and experts, high agreement was found with regard to the following items: 1. The SP invited the student to reflect on the consultation first, Amin (= minimal agreement) 97% 2. The SP asked the student what he/she liked about the consul-

tation, Amin = 88%. 3. The SP started with positive feedback, Amin = 91%. 4. The SP was comparing the student with other students, Amin = 92%. In contrast the following items showed differences between the rating of experts and students: 1. The SP used precise situations for feedback, Amax (=maximal agreement) 55%, Students rated 67 of SPs' feedbacks to be perfect with regard to this item (highest rating on a 5 point Likert scale), while only 29 feedbacks were rated this way by the experts. 2. The SP gave precise suggestions for improvement, Amax 75%, 62 of SPs' feedbacks obtained the highest rating from students, while only 44 of SPs' feedbacks achieved the highest rating in the view of the experts. 3. The SP speaks about his/her role in the third person, Amax 60%. Students rated 77 feedbacks with the highest score, while experts judged only 43 feedbacks this way. **Conclusion** Although evaluation by the students was in agreement with that of experts concerning some items, students rated the SPs' feedback more often with the optimal score than experts did. Moreover it seems difficult for students to notice when SPs talk about the role in the first instead of the third person. Since precision and talking about the role in the third person are important quality criteria of feedback, this result should be taken into account when thinking about students' evaluation of SPs' feedback for quality control.

Bouter, S., E. van Weel-Baumgarten, and S. Bolhuis. 2012. Construction and Validation of the Nijmegen Evaluation of the Simulated Patient (NESP): Assessing Simulated Patients' Ability to Role-Play and Provide Feedback to Students. *Academic medicine: journal of the Association of American Medical Colleges*.

SC1-5

rejected by authors

First simulation training for health-care professionals working at the Pain Center of the Centre Hospitalier de l'Université de Montréal (CHUM.) Preliminary results

Friday, 12 September 2014

SC2-1

(1) Meyer U., (2) Matt S., (1) Gerber F., (2) Durrer Ch., (1) Brodmann Maeder M.

Interprofessional team training with focus on geriatric patients in the ED using SPs

Background Since 2009, the University Emergency Department (ED) has been running an interprofessional education program to improve collaborative practice. Since the beginning, the focus lies on interactive learning activities like manikin simulation and the use of SP to foster learning “with, from and about each other” (WHO 2010). The increasing number of elderly patient presentations represents a growing problem for EDs, as the length of stay is longer, due to the multimorbidity and complexity of this patient group (Desy & Prohaska, 2008). This results in the risk of overflow situations in EDs with negative consequences on patient outcome (Hastings & Heflin, 2005; McCusker & Verdon, 2006; Shanley, Sutherland, Stott, Tumeth, & Whitmore, 2008). **Project description** In 2013, an interprofessional faculty with geriatric experts, ED staff and educators developed an interprofessional education program for the nurses and physicians in the ED. After a one-day faculty development program, 22 half-day trainings took place within two months. Core elements of this interprofessional education were two SP scenarios with an elderly actress, followed by a moderated debriefing with feedback from the SP and short theoretical inputs on medical topics (sepsis, delirium and dementia), home care or end-of-life decisions. Evaluation consisted of a questionnaire covering questions about content of the training, competence of the facilitators, learning methods and atmosphere. **Results** 78/100 nurses and nurse assistants, 16/20 consultants and 8/22 residents attended the training. 81/102 questionnaires were ready for evaluation. All the elements of the evaluation were rated “good” to “very good”, with the best ratings going to the course atmosphere. The simulations with the SP got excellent ratings, and it was mainly the chance to get a

direct feedback from a patient on the performance of the individuals and the teamwork that was the most important factor for these ratings. **Discussion** SP scenarios on aspects of the care of elderly patients in the Emergency Department are an excellent learning tool for interprofessional education in order to improve collaborative practice and are highly appreciated by participants. We are sure that it was mainly the aspect of getting direct feedback from the “patient” that was an important factor in the good ratings and the overall success of the program.

SC2-2

(1) Schlegel, C., (2) Bonvin, R., (3) Rethans, J.J., (4) van der Vleuten, C.

Video instruction on the accuracy of standardized patients portrayal training: a randomized posttest control group design

Introduction High-stake Objective Structured Clinical Examinations (OSCEs) with standardized patients (SPs) should offer the same conditions to all candidates throughout the exam. SP performance should therefore be as accurate and close to the original role script as possible during all encounters. Hence role accuracy is a key element in the training and use of SPs in examinations. This research investigates how the use of video during SP training improves the accuracy of SP portrayal. **Methods** In a randomized post-test control group design, three intervention groups with different types of video training and one control group without video use in SP training were compared. The same experienced SP trainer trained each group for the same case in a 90-minute session. The three intervention groups respectively used role-modeling video, performance-feedback video or a combination of both. Each SP performed four sequential portrayals with students. Two blinded faculty members rated the 192 video-recorded encounters using a case specific rating instrument to assess SPs’ role accuracy. **Results** SPs who used any type of video during training performed significantly better than SPs trained without video in terms of accuracy over four sequential portrayals. **Discussion** Use of

video during SP training enhances the accuracy of SP portrayal compared with no video, regardless of the type of video intervention used.

SC2-3

(1) Yusaf, M., (1) Omer, R., (1) Purva M.

In situ simulation session: an opportunity to enhance teamwork and leadership skills

Background In situ simulation can provide a realistic environment for participants. It can also help to identify safety issues¹. The importance of teamwork for patient safety in healthcare has been well established. However, the theory and research of healthcare teams are seriously lacking in clinical application. While conventional team theory assumes that teams are stable and leadership is constant, a growing body of evidence indicates that most healthcare teams are unstable and lack constant leadership². An in situ simulation exercise in the gynecology operating theater that included theater scrub nurses and anesthetists was thus organized. **Objectives** 1. To use in situ simulation to enhance team working and leadership skills among theatre staff 2. To identify safety issues within the real live environment. **Methods** Anesthetic registrars, theatre scrub nurses, perioperative nurse practitioners were invited to participate in the session. The scenario was based on a routine gynecology operation that culminated in a cardiac arrest using a high fidelity simulator. Some of the candidates were assigned roles they were unfamiliar with to enhance understanding of each other’s roles. Candidates were filmed for video debriefing and feedback. Candidates completed pre and post session evaluation sheets. **Results** All candidates agreed that simulation could provide a powerful tool to enhance human factors training. Candidates reported an overall increase in confidence in recognizing an acute emergency and ability to lead in a crisis. There was a notable increase in confidence in communicating with team members and prioritizing tasks in an acute emergency. **Conclusion** In situ simulation can provide insight to participants to look for potential hazards in their rou-

tine workplace. Candidates were able to appreciate the importance of non-technical skills like leadership, communication and team working. Routine simulation exercises should be utilized to aid in the reduction of medical errors and to provide safer patient care.

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SC2-4

(1) Heberle, W., (1) Gisler, P., (1) Heim, S., (1) Lichtensteiger, S., (2) Metzenthin, P., (2) Matt Robert, S., (2) Watzek, D.

Practical knowledge of stagecraft: investigation into its importance in communication training in the health sector (Research)

Background Professional actors are increasingly being employed in various social areas as standardized persons (SP) for coaching sessions. This study investigates the artistic and communicative skills that actors contribute to the health sector as patient players and communication trainers. An important characteristic of communication training at the Bern University of Applied Sciences is that the actors are not only employed as standardized persons, but also function as communication trainers (CT). In this function, they are the ones responsible for subsequent feedback, not lecturers from the Health Department. The combination of these tasks calls on the actors to have broad expertise in various areas. The project arose from the close proximity of the disciplines of drama and healthcare within the Bern University of Applied Sciences. The interdisciplinary approach also enables the communication training sessions to be investigated from an artistic/theatre studies perspective. **Research question** The objective of this study is to describe the artistic and theatrical skills required by the actors for their role as communication trainers: what artistic, communicative and professional expertise do actors contribute from the theatrical or health-

care professions perspective? This will be investigated both for their function as role partners to the students, and as facilitators in the feedback discussions. **Methods** The project is based on a qualitative-descriptive design in which the investigation takes place in two stages. In a first stage, the training sessions are examined from the artistic perspective, focussing on theatrical methods of performance analysis and participatory observation. In the course of this, both the interaction phase (first part) between the students and the SPs, as well as the subsequent feedback (second part) are observed. While the first part will go into the artistic-dramatic skills of the actors, the second part focuses on the specific qualities that an actor can contribute to the feedback as a result of his empathy skills refined in training (character and role studies) and his direct experience of the situation. In the second stage, the various participants in the training (communication trainers, students and lecturers) are questioned with the aid of semi-structured focus group interviews. **Results, discussion and conclusion** At the time of submission of the abstract, the study had only just commenced. As a consequence, no results are available. It should be possible to present initial results within the framework of SPSIM 2014. At the present moment, theatrical training is not focussing on the actors' skills as SPs or communication trainers which are to be investigated. However, since the range of tasks for actors in the field of coaching is steadily growing, consideration should be given to imparting these skills in the training. Finally, the purpose and benefits of an interdisciplinary collaboration between the acting and the health professions should be discussed at the meta level within the scope of the research project.

SC2-5

(1) Brem, B.G., (1) Richter, S., (1) Schnabel, K.P.

FAIR_OSCE – Feedback structure for assessment of interactive roleplay in Objective Structured Clinical Exams

Introduction Since the quality of patient portrayal of standardized patients (SPs)

during an Objective Structured Clinical Exam (OSCE) has a major impact on the reliability and validity of the exam, quality control should be initiated. Literature about quality control of SPs' performance focuses on feedback [1, 2] or completion of checklists [3, 4]. Since we did not find a published instrument meeting our needs for the assessment of patient portrayal, we developed such an instrument after being inspired by others [5] and used it in our high-stakes exam. **Project description** SP trainers from five medical faculties collected and prioritized quality criteria for patient portrayal. Items were revised twice, based on experiences during OSCEs. The final instrument contains 14 criteria for acting (i.e. adequate verbal and non-verbal expression) and standardization (i.e. verbatim delivery of the first sentence). All partners used the instrument during a high-stakes OSCE. SPs and trainers were introduced to the instrument. The tool was used in training (more than 100 observations) and during the exam (more than 250 observations). Outcome High quality of SPs' patient portrayal during the exam was documented. More than 90% of SP performances were rated to be completely correct or sufficient. An increase in quality of performance between training and exam was noted. For example, the rate of completely correct reaction in medical tests increased from 88% to 95%. Together with 4% of sufficient performances these 95% add up to 99% of the reactions in medical tests meeting the standards of the exam. SP educators using the instrument reported an augmentation of SPs' performance induced by the use of the instrument. Disadvantages mentioned were the high concentration needed to observe all criteria and the cumbersome handling of the paper-based forms. **Discussion** We were able to document a very high quality of SP performance in our exam. The data also indicates that our training is effective. We believe that the high concentration needed using the instrument is well invested, considering the observed enhancement of performance. The development of an iPad-based application for the form is planned to address the cumbersome handling of the paper.

Workshops

Thursday, 11 September 2014

WS1-1

Dr. Henrike Hölzer and Debra Nestel PhD,
Professor of Simulation Education
in Healthcare

Multi-source feedback in patient-focused simulation: benefits and challenges

Many simulation scenarios provide a variety of feedback opportunities for the learner. The workshop looks at the different perspectives that might be relevant in patient-focused simulation. Facilitator feedback could be accompanied by the learner's self-evaluation and might be supplemented by peer feedback as well as simulated patient feedback. We will consider not only the specific challenges of each perspective but also the preconditions for a fruitful combination of all of them. During the workshop participants will consider the benefits and challenges of multisource feedback. At each stage of the simulation event – preparation, briefing, simulation, debriefing/feedback, reflection and evaluation – we will explore how to optimize benefits and minimize challenges. In addition, instruments will be introduced and discussed that support different approaches to debriefing/feedback. There will also be opportunities to discuss examples from the participants' simulation experiences.

This workshop is designed for individuals with some experience in offering debriefing/feedback after simulations.

WS1-2

Sonal Arora, PhD MBBS MRCS BSc(hons),
Patient Safety Translational Research
Centre, Imperial College London UK

Debriefing with Assessment Tools

This interactive workshop aims to provide attendees with the opportunity to develop their knowledge and skills in debriefing. Using an evidence-based approach, it will review the importance of briefing and debriefing as the engine for learning in simulation-based training, define key components of effective debriefing, and introduce reliable and validated tools (Objective Structured Assessment of Debriefing: OSAD and SHARP) for improving debriefing in the simulated and real clinical setting.

Attendees will be given hands-on practice with these tools using a combination of multi-media and small-group work, facilitated by expert faculty.

Attendees will learn how to deliver debriefings using an evidence-based approach so as to maximize learning in a time-limited setting. They will also learn how to evaluate the quality of (their) debriefing skills so as to aid faculty development.

WS1-3

(1) Kampel B.

Improvisation techniques in a simulated patient training using the example of representing pain

Background In the Model Medicine Curriculum at the Charité Universitätsmedizin Berlin, the method of simulated patient (SP) is employed for experiential learning of communicative and social competences in medical education. The SP plays the role of a patient. This persona is based on a script, which was produced by a physician and is oriented to particular educational objectives. **Learning objectives** The SP will be prepared for the assignment by a broad training. In addition to learning the clinical picture and the case history, the SP will learn to depict the personality of the patient, react correctly to physical examinations, or represent pain. The aim is an accurate presentation of the medical facts and a convincing portrayal of the patient's personality. In the training session, different acting methods will be used. The practice of improvisational theatre is one of them. On the one hand, it is useful to exercise improvising skills and on the other hand, it helps to develop empathy with the patient. **Workshop description** In this workshop, we will introduce some improvisational exercises of SP training and practise them using the example of a typical patient script representing back pain. We will also discuss the relation between different types of pain and their effect on the patient's emotion and behavior. We will consider the difference between representing chronic and acute aches. Moreover, a general overview of the topics of SP training will be given. **Target audience** Faculty, simulated patient trainers, students working with simulated patients.

WS1-4

(1) Sroka, C.

How to improve the quality of SP feedback: a train the trainer workshop

Introduction SP feedback is important for student learning. How can SPs provide good quality of feedback? **Method** In a first step, SPs are trained in the role and in the structure of feedback giving. In a second step, case-specific individual criteria are developed together with the SPs. In a third step, we film the SP feedback during a student-SP encounter. The fourth step includes the self-evaluation of SP feedback using the video. In a last step, we share the lessons learned. This makes it possible to improve the quality of SP feedback. In this workshop, you will practice the different steps of this particular training program.

WS1-5

(1) Vergnion, M., (1) Hosmans, T., (1) Lamarche, F., (1) Losfeld, X., (1) Maraite, M., (1) Thomsin, S., (1) van Vuren, S.

Hybrid simulation and new technologies

Background The use of hybrid simulation (HS) is increasing. This cost-effective concept combines standardized patients (SP) with certain devices used during high-fidelity simulations such as trainers and virtual monitoring systems. In recent years, companies have developed these kinds of virtual monitoring systems at a much lower price than those used with high-fidelity manikins. The main advantage of SP is the increase in realism of the relationship between healthcare providers and patients when compared with high-fidelity manikins as described by students during birthing simulations (1,C Okupniak). However, the possibilities of the SP in imitating physio-pathological data are limited. For example, it is impossible for

SPs to imitate pathologic cardiac and pulmonary sounds as high-fidelity manikins do. Even if realism is known to improve learning during medical simulations, it is a complex concept that includes several subjective dimensions (physical, semantic and phenomenological) that are difficult to quantify (2,D Gaba). In order to improve physical realism, we have developed a homemade wireless stethoscope, which synchronizes with the "Simpad" system from the Laerdal company. Different cardiac and respiratory sounds can be heard in the stethoscope with the same heart or respiratory rate as imposed by the "Simpad" and only when applied on the skin. **Workshop objectives** The goal of this workshop is to allow participants to experiment our wireless stethoscope through two different scenarios of hybrid simulation and to discuss the realism brought by this tool. **Workshop description** A scenario of respiratory distress and one of thoracic pain will be carried out. The SP will wear makeup and a special pad placed on his forearm in order to insert intravenous access. All the material for an initial assessment will be available. Two teams of volunteers will take charge of the SP for 2 simulation sessions, each lasting 10 minutes. After each session, we will discuss the impact that the virtual monitoring system combined with the stethoscope have on the realism of the simulation using a Likert-style questionnaire. A round table on perspectives for improvement and implementation will conclude the workshop. An exchange of experiences between participants should result in the discovery of innovative solutions. **Target audience** The entire community of people interested in simulation and emergency care who want to implement a cost-effective method and/or improve the realism of specific aspects of simulations.

Friday, 12 September 2014**WS2-1**

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Developing checklists and other instruments to assess learners in simulation-based educational programs

Standardized Patients and other simulation modalities provide unique opportunities for assessment of learners based on direct observation of performance in simulated clinical tasks. Information regarding the learner's performance is captured via checklists and other instruments. The characteristics of these instruments are key to obtaining dependable results that can be used to provide formative feedback, to support mastery learning, and to justify summative decisions. In this workshop we will review different approaches to the development of checklists and rating scales for assessing learners. We will identify and analyze sources of validity evidence for scores based on these instruments and develop strategies to maximize the validity of simulation-based assessments.

WS2-2

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Why and how to use incognito (unannounced) standardized patients?

In medical education simulated and standardized patients are most times used for teaching, assessment or research purposes.

In these circumstances the students/physicians who 'deal' with the SPs are aware that the patients they are communicating with are not real patients. This awareness may well impact the performance of the students/physicians involved.

Through the years a number of projects have been conducted where it was not known that the simulated/standardized patients were not real patients: studies with incognito (unannounced) standardized patients.

In these projects, typically conducted in real health care situations, SPs are introduced in physicians' offices while the physician is not aware (s)he is not dealing with a real patient.

In this workshop we will address the reasons to conduct such studies and the way one introduces incognito SPs in physicians' offices.

The purpose of this workshop is to enable participants to make up their mind as to what they think of studies with incognito SPs (pros and cons) and to give them tools to start conducting this type of SP studies.

WS2-3

(1) Kolbe, M., (2) Grande, B.

Advanced feedback and debriefing techniques: combining advocacy-inquiry with methods from systemic family therapy

Background Debriefing is an instructor-guided conversation among trainees that aims to understand the relationships between events, actions, thought and feeling processes, as well as performance outcomes of the simulation.[1] In one of the most effective debriefing strategies, "debriefing with good judgment", debriefers pair advocacy with inquiry: they combine feedback and reflective practice and offer an approach for expert judgment by deliberately voicing performance gaps and questioning trainees' respective mental routines.[1] We submit that this approach can be complemented with techniques stemming from systemic family therapy. At its core, systemic therapy focuses on individuals within their systems, that is, it looks at patterns and dynamics of interactions and relationships rather than at isolated individual behavior.[2-5] Using techniques of systemic therapy thus seems promising for exploring the relationships among events, actions, and performance outcomes of the simulation. A prominent example of systemic

techniques is the circular question. A circular question aims at exploring a dyadic relationship as it is seen by a third person by inviting the third person to describe the relationship of two others in their presence.[6] For example, the instructor may ask the nurse: "What did the senior physician do when she entered the OR and how did the resident physician react to that?" Thus, circular questions ask a trainee to circle back and comment from an outside perspective on an interaction in which they took part or which they observed. It allows people within a team to track team behavior patterns, generate new information, and foster perspective taking and observation skills in debriefing. They have the potential to uncover existing mental models and to challenge them by interpretation alternatives.[2] We submit that, for experienced instructors, methods from systemic family therapy can complement the advocacy-inquiry. For example, a circular question could be used as inquiry: "Charlotte, you have observed the interaction between Susan and Peter. I am curious about your perspective. What are your ideas on what Peter might have needed from Susan to speak up in that situation?". During the course, we will demonstrate a range of circular questions, discuss what is required to use them, and show and practice how, by using circular questions, debriefers can "walk the talk" of teamwork by modeling team communication. **Learning objectives** After this course, participants will be able to – Describe a rationale and an approach for debriefing teams by combining advocacy-inquiry with systemic methods and provide an indication for use – Develop circular questions – Reflect on advantages and disadvantages of this method. **Workshop description** 1. Introduction to systemic debriefing techniques and avenues for combining them with advocacy-inquiry (5') 2. Short demonstration of systemic debriefing techniques (5') 3. Video footage of a simulated case (5') 4. Workshop participants simulate debriefing of this case using systemic techniques (60') 5. Brief, structured discussion of strengths and challenges of this method (15') **Target audience** Simulation instructor faculty with some debriefing experience.

WS2-4

(1) Richter, S., (2) Demaurex, F.

3-D moulage in assessment and role-play – a practical workshop

Background In the context of teaching and assessment with simulated patients, it is possible that patients must simulate acute diseases in which it is important e.g. to display an open wound or a swelling. For the realism of the situation, it is important for the candidate to actually see these findings. Good moulage can also be helpful for SPs, to play the role more clearly. Similarly, it may be that for instance merely imitating the colour of a periorbital infection is not enough for the portrayal, and a swelling would give crucial clues to the illness; the same goes for an open wound in case an accident. Often it is thought that this kind of moulage is not suitable for more than one scenario because it is not durable. Following the workshop from the last meeting "Make-up techniques in assessment and role-play", we want to take the techniques a step further and show how realistic and durable moulages can be, especially for use in examinations. **Aims** Corresponding moulage techniques will be taught and practiced with professional materials. **Cognitive learning objectives** • To know the material that can be used, what the advantages and disadvantages of the different materials are • To know other typical physical findings which can be simulated with moulage. **Psychomotor learning objectives** • Be able to make moulages of an open wound and a periorbital infection • Be able to make moulages of other pathological lesions to reality Emotional learning objectives • Experience what it is like to be made up. **Methods** Theoretical background, hands-on workshop, materials Target group SP-trainers who want to learn how to use moulage to create realistic physical findings and thus prepare SPs for their role.

WS2-5

(1) Fortini, C., (1) Viret, F.

Feedback in motivational interviewing

Motivational interviewing (MI) is a person-centered, collaborative communication style aimed at strengthening a person's own motivation and commitment to change. At the Faculty of Biology and Medicine (FBM) of the University of Lausanne, 5th-year medical students are introduced to MI through a lecture, an encounter with a simulated patient (SP), and two afternoons of practical exercises. The encounter with the SP is crucial, as it enables the student to experience the difficulties of facilitating change. At the end of their encounter, the patient provides the student with feedback, for which he/she has been specifically trained. The present communication will focus on how these simulated patients are trained to give adequate feedback and on the challenges involved. Ideas and guidelines for future training will be identified and discussed. Feedback is a process by which information is given on the basis of one's perfor-

mance regarding some aspect(s) of a task, in order to reinforce or change a behavior; it helps making required adjustments and improving the next performance. During their curriculum, students of the FBM experiment various encounters with SPs in which an important part is dedicated to feedbacks. SP trainers try to teach the SPs to give students benevolent and useful feedback. During the encounters, SPs have to be aware of various aspects of the situation: • while performing a role, the SP has to identify his/her reactions and feelings ("at ease", "judged", "supported"), and identify the cause of these feelings • After the encounter, the SP must be able to communicate to the student what he/she has observed, thus providing effective remarks on student communication skills from the point of view of the patient he/she was portraying. He/she has to illustrate his/her comments with examples in order to make the student understand how their behavior can influence the patient's reactions. Good feedback must allow the student to improve his/her skills in a specific field. It thus has to fit the objectives of the clinical situation. In

motivational interviewing, feedback is different from usual feedback on behaviors and communication skills. Even though the quality of the relationship between student and SP is essential, what must also be observed in MI is a more dynamic aspect of the encounter. The SP will not give feedback on what makes him react one way or another, but rather on what makes him think; in other words, on what has made him progress towards behavioral change or, on the other hand, what has reinforced current behavior. Sometimes SPs must go against their first impression of easiness and comfort, and focus on elements which can make them uneasy during the encounter, which makes feedback in MI very specific. This communication/workshop will try to show the difficulties of the training of SPs in giving feedback specific to MI and the way trainers try to overcome these obstacles.

Speaker profiles and abstracts have not been fully edited.

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