Su1557 Development of an E-Learning System for the Endoscopic Diagnosis of Early Gastric Cancer: an International Multicenter Randomized Controlled Trial

Kenshi Yao1, Nortya Ucelo2, Manabu Muto3, Hideki Ishikawa4, Hector J. Cardona5, Elio C. Castro Filho6, Rapat Pittayanon7, Kenshi Yao*1, Noriya Uedo2, Manabu Muto3, Hideki Ishikawa4, Carolina Olano1, Fang Yao2, Adolfo Parra-Blanco1, Shih-Hooi Ho1, General gastroenterologist2, Andreas Avendano Alvarado3, Alejandro Piscoya1, Andrez P. Balcik4, Alexandr Mitakov5, Luis E. Caro6, Can Gonenc7, Sunil Dohlwan8, Alberto Farca9, Liz F. Cuevasma9, Juan J. Bonilla22, Wisit Kasetsermwiriya23, Krish Ragunath24, Sung Eun Kim25, Gerardo Avendano Alvarado12, Alejandro Piscoya13, Evgeny Fedorov14, University College of Medicine, Busan, Korea (the Republic of); Federico Iacopini30, Jimmy B. So31, Kendi Yamazaki32, Gwang H. A. Kim33, Universidad Nacional Adolfo Guenvara Velasco, Cusco, Peru; i-gastro/Hospital de Hospital, Navamindradhiraj University, Bangkok, Thailand; Hector J. Cardona5, Elio C. Castro Filho6, Rapat Pittayanon7, Medical Center for Cancer and Cardiovascular Diseases, Osaka, Japan; King Chulalongkorn Memorial Hospital, Bangkok, Thailand; Universidad de la Republica, Montevideo, Uruguay; Peking Union Medical College Hospital, Beijing, China; School of Medicine, Pontificia Universidad Catolica De Chile, Santiago, Chile; Peking Union Medical College, Beijing, China; School of Medicine, Pontificia Universidad Catolica De Chile, Santiago, Chile; 1Fukuoka University Chikushi Hospital, Chikushino, Japan; 2Osaka Medical Center for Cancer and Cardiovascular Diseases, Osaka, Japan; 3Kyoto University, Kyoto, Japan; 4Kyoto Prefectural University of Medicine, Kyoto, Japan; 5Simon Bolivar Hospital, Bogota, Colombia; 6Rio de Janeiro State University, Rio de Janeiro, Brazil; 7King Chulalongkorn Memorial Hospital, Bangkok, Thailand; 8Universidad de la Republica, Montevideo, Uruguay; 9Peking Union Medical College Hospital, Beijing, China; 10School of Medicine, Pontificia Universidad Catolica De Chile, Santiago, Chile; 11University of Malaya, Kuala Lumpur, Malaysia; 12Hospital Dr. R. A. Calderon Guardia, CCS, San Jose, Costa Rica; 13Universidad Peruana de Ciencias Aplicadas, Lima, Peru; 14Russia National Medical University, Moscow University Hospital N3I, Moscow, Russian Federation; 15Pomeranian Medical University, Szczecin, Poland; 16Nizhniy Novgorod Cancer Hospital, Nizhniy Novgorod, Russian Federation; 17Gastroenterologia diaagnostica terapeutica, Buenos Aires, Argentina; 18Haydarpaşa Numune Training and Research Hospital, Istanbul, Turkey; 19Institute of Cancer & Genetics, Cardiff University School of Medicine, Cardiff, United Kingdom; 20Centro Medico ABC, Mexico City, Mexico; 21Hospital Nacional Adolfo Guenvara Velasco, Casco, Peru, 22i-gastro/Hospital de Fuerza Aerea del Peru, Lima, Peru; 23Faculty of Medicine Vajira Hospital, Navaninmidhribang University, Bangkok, Thailand; 24Nottingham University Hospital, Nottingham, United Kingdom; 25Kosin University College of Medicine, Busan, Korea (the Republic of); 26Gastroenterology and Operative Endoscopy Unit, Siena, Italy; 27Sichuan Provincial People’s Hospital Sichuan Academy of Medical Sciences, Chengdu, China; 28Hospital Alman, Buenos Aires, Argentina; 29Hospital de Clinicas Jose de San Martin, Buenos Aires, Argentina; 30Ospedale S. Giuseppe, ASI Rome H. Albanu L, Italy; 31National University of Singapore, Singapore, Singapore; 32University of Sao Paulo, Sao Paulo, Brazil; 33Pusan National University School of Medicine, Busan, Korea (the Republic of); 34Changi General Hospital, Singapore, Singapore; 35General Hospital or Gaiaiana, Gaiaiana, Brazil

Abstracts

Su1558 Preclinical Endoscopic Training Using a Part-Task Simulator: Learning Curve Assessment and Determination of Threshold Score for Advancement to Clinical Endoscopy

Pichamol Jirapinyo*2, Hirokui Aihara3, Wasif M. Abidi4, Vicki Bing5, Arlin B. Imaeda2, Christopher C. Thompson1
1Division of Gastroenterology, Brigham & Women, Boston, MA; 2Yale University School of Medicine, New Haven, CT

Background: Endoscopic training is a multifaceted and complex process. It has been proposed that trainees should first learn endoscopy in a non-clinical environment. Once they reach a minimal level of familiarity with the device, they may advance to clinical endoscopic training. Aim: To characterize the endoscopic learning curve in novices using a part-task simulator and propose a threshold score for advancement to initial clinical cases. Methods: Fourteen residents with no prior endoscopic experience were enrolled. Participants underwent repeated endoscopic sessions using the part-task simulator. The simulator consists of 5 modules—polypectomy, retroflexion, torque, knob control and loop reduction/navigation. Simulator scores were collected. Mean total scores for each repetition were calculated. Change point analysis was used to determine whether the subjects’ simulator scores plateaued (the session after which the slope of the linear regression was not significantly different from zero). Additionally, all participants filled out a questionnaire regarding simulator experience after sessions 1, 5, 10, 15 and 20. A 100 mm visual analog scale (VAS) was used to assess the level of comfort and demand. Results: Fourteen novices underwent a total of 236 endoscopic simulator sessions with an average of 17 sessions per novice. Mean total simulator scores at sessions 1, 5, 10, 15 and 20 were

Figure 1. Participants enrollment, randomization and e-tests.