(English Session)

□ ライブ配信(Live streaming available)

March 1, 2019 (Fri) $9:00\sim10:00$ Room 11 (Room C-2/Kyoto International Conference Center 1F)

English Session 1 (EngO1)

Chair Sungwon Na (Department of Anesthesiology and Pain Medicine, Yonsei University College of Medicine, Korea)

EngO1-1 External pressure to the calf region in contact with the boot-support-type leg holder system in the lithotomy position Ju Mizuno¹, Toru Takahashi² (1. Department of Anesthesiology and Pain Medicine, Juntendo University Faculty of Medicine, Japan, 2. Faculty of Health and Welfare Science, Okayama Prefectural University, Japan)

EngO1-2 Factorial analyses of incidental arterial line decannulation in the ICU

Noboru Hatakeyama, Masatoshi Okumura, Hideo Isobe, Atsushi Hashimoto, Kensuke Sakakibara, Yoshihito Fujita, Yoshihiro Fujiwara (Surgical Intensive Care Unit and Anesthesiology, Aichi Medical University, Japan)

EngO1-3 Work related noise exposure and stress in intensive care unit

Seungho Jung, Jeongmin Kim, Sungwon Na (Department of Anesthesiology and Pain Medicine, Yonsei University College of Medicine, Korea)

EngO1-4 Current status of pain and sedation therapy on noninvasive mechanical ventilation in Korean Intensive Care Units: a multi-center observational study

Taehee Kim¹, Jae Hwa Cho¹, Cheung Soo Shin², Jeong Soo Kim³, Sunghoon Park⁴, Korean Non-Invasive Ventilation Study Group (1. Department of Internal Medicine, Gangnam Severance Hospital, Yonsei University College of Medicine, Korea, 2. Department of Anesthesiology, Gangnam Severance Hospital, Yonsei University College of Medicine, Korea, 3. Department of Internal Medicine, Inha University College of Medicine, Korea, 4. Department of Pulmonary, Allergy and Critical Care Medicine, Hallym University Sacred Heart Hospital, Korea)

EngO1-5 Utility of continuous monitoring and visualizing system for respiratory sounds

Kazuya Kikutani, Shinichiro Ohshimo, Shingo Ohki, Hiroshi Giga, Satoshi Yamaga, Takuma Sadamori, Nobuaki Shime (Department of Emergency and Critical Care Medicine, Graduate School of Biomedical & Health Sciences, Hiroshima University, Japan)

EngO1-6 (Withdrawn)

March 1, 2019 (Fri) $14:00 \sim 15:00$ Room 11 (Room C-2/Kyoto International Conference Center 1F) English Session 2 (EngO2)

Chair Fumimasa Amaya (Kyoto Prefectural University of Medicine, Japan)

EngO2-1 Significance of intra aortic balloon pump in increasing the blood flow to the abdominal organs

Arudo Hiraoka, Genta Chikazawa, Kosuke Sakamoto, Toshinori Totsugawa, Kentaro Tamura, Hidenori Yoshitaka, Taichi Sakaguchi (Department of Cardiovascular Surgery, The Sakakibara Heart Institute of Okayama, Japan)

EngO2-2 Effect of certified emergency life saving technicians for out-of-hospital cardiac arrest patients: A report from the JCS-ReSS study

Hiromichi Naito^{1,2}, Tetsuya Yumoto^{1,2}, Yoshio Tahara^{1,3}, Naohiro Yonemoto^{1,4}, Hiroshi Nonogi^{1,5}, Hiroaki Shimokawa^{1,6}, Ken Nagao^{1,7} (1. JCS-ReSS Group, Japan, 2. Okayama University Hospital, Advanced Emergency and Critical Care Medical Center, Japan, 3. Division of Coronary Disease, National Cerebral and Cardiovascular Center Hospital, Japan, 4. Department of Biostatistics, Kyoto University School of Public Health, Japan, 5. Shizuoka General Hospital, Japan, 6.Department of Cardiovascular Medicine, Tohoku University Hospital, Japan, 7. Nihon University Hospital, Cardiovascular Center, Japan)

EngO2-3 Geographical differences on national meeting effect in patients with out-of-hospital cardiac arrests: A report from the JCS-ReSS study

Tetsuya Yumoto^{1,2}, Hiromichi Naito^{1,2}, Yoshio Tahara^{1,3}, Naohiro Yonemoto^{1,4}, Hiroshi Nonogi^{1,5}, Hiroaki Shimokawa^{1,6}, Ken Nagao^{1,7} (1. JCS-ReSS study group, Japan, 2. Department of Emergency, Critical Care, and Disaster Medicine, Okayama University Graduate School of Medicine, Dentistry and Pharmaceutical Sciences, Japan, 3. Division of Coronary Disease, National Cerebral and Cardiovascular Center Hospital, Japan, 4. Department of Biostatistics, Kyoto University School of Public Health, Japan, 5. Shizuoka General Hospital, Japan, 6. Department of Cardiovascular Medicine, Tohoku University Hospital, Japan, 7. Nihon University Hospital, Cardiovascular Center, Japan)

EngO2-4 Are school hours associated with better outcomes of out-of-hospital cardiac arrest in school children?

Hideo Inaba¹, Akira Yamashita², Hisanori Kurosaki¹, Keisuke Ohta³, Yasuhiro Myojo³ (1. Department of Circulatory Emergency and Resuscitation Science, Kanazawa University Graduate School of Medicine, Japan, 2. Department of Cardiology, Noto General Hospital, Japan, 3. Emergency Medical Center, Ishikawa Prefectural Central Hospital, Japan)

EngO2-5 Extracorporeal cardiopulmonary resuscitation and damage control surgery for cardiac arrest due to postpartum hemorrhage

Kenshin Shimono¹, Hirokazu Onishi¹, Ryuji Sugimoto¹, Chiyoka Kosaihira², Masato Kamitomo², Takeshi Kodama³, Tsuyosi Ueno³, Junichiro Hamasaki³, Shohei Matsukubo¹, Hideaki Yoshihara¹ (1. Department of Emergency and Critical Care Center, Kagoshima City Hospital, Japan, 2. Department of Obstetrics and Gynecology, Kagoshima City Hospital, Japan, 3. Department of Critical Care Medicine, Kagoshima City Hospital, Japan)

EngO2-6 (Withdrawn)

March 2, 2019 (Sat) $8:45 \sim 9:45$ Room 11 (Room C-2/Kyoto International Conference Center 1F) English Session 3 (EngO3)

Chair Atsushi Kawaguchi (University of Montreal, Canada)

EngO3-1 Clinical analysis of prolonged mechanical ventilation > 72hrs following acute type A aortic dissection repair

Genta Chikazawa, Kentaro Tamura, Arudo Hiraoka, Toshinori Totsugawa, Atsuhisa Ishida, Satoko Ishii, Taichi
Sakaguchi, Hidenori Yoshitaka (Department of Cardiovascular Surgery and Surgical ICU, The Sakakibara Heart
Institute of Okayama, Japan)

EngO3-2 Measurement of esophageal pressure to assess extubation readiness in a neonate with congenital diaphragmatic hernia: its feasibility and usefulness

Masashi Taniguchi, Yu Inata, Takeshi Hatachi, Yoshiyuki Shimizu, Kazuya Tachibana, Muneyuki Takeuchi (Department of Intensive Care Medicine, Osaka Women's and Children's Medical Center, Japan)

EngO3-3 Current practice of high-flow nasal cannula-the pilot study

Je Hyeong Kim¹, Byun Ki Kim², Su A Kim¹, You Sang Ko³, Won Gun Kwack⁴, So Young Park⁵ (1. Department of Critical Care Medicine, Korea University Ansan Hospital, Korea, 2. Division of Pulmonology, Department of Internal Medicine, Korea University Ansan Hospital, Korea, 3. Division of Pulmonary, Allergy and Critical Care Medicine, Department of Internal Medicine, Kangdong Sacred Heart Hospital, Korea, 4. Division of Pulmonary, Allergy and Critical Care Medicine, Department of Internal Medicine, Kyung Hee University Hospital, Korea, 5. Department of Pulmonary and Critical Care Medicine, Chung Nam National University Medical Center, Korea)

EngO3-4 High-flow nasal cannula induced tension pneumocephalus

Youjin Chang¹, Tae-Gyu Kim², Sun-Yoon Chung³ (1. Division of Pulmonary and Critical Care Medicine, Department of Internal Medicine, Inje University College of Medicine, Sanggye Paik Hospital, Korea, 2. Department of Radiology, Inje University College of Medicine, Sanggye Paik Hospital, Korea, 3. Department of Neurosurgery, Inje University College of Medicine, Sanggye Paik Hospital, Korea)

EngO3-5 Effect of high-flow via non-rebreathing face mask compared to nasal cannula on nasopharyngeal CPAP, gas exchange and clinical outcome after extubation in surgical patients

Sunthiti Morakul¹, Poungrat Thungtitigul², Preeda Sumritpradit³, Pongsasit Singhatas³, Viratch Tangsujaritvijit⁴ (1. Department of Anesthesiology, Ramathibodi Hospital, Mahidol University, Thailand, 2. Critical care unit, Department of Medicine, Vajira Hospital, Navamindradhiraj University, Thailand, 3. Department of Surgery, Ramathibodi Hospital, Mahidol University, Thailand, 4. Pulmonary and Critical care unit, Department of Medicine, Ramathibodi Hospital, Mahidol University, Thailand)

EngO3-6 Effect of intraoperative PEEP setting guided by esophageal pressure measurement on oxygenation during laparoscopic gynecologic surgery

Annop Piriyapatsom, Sanchai Phetkampang (Department of Anesthesiology, Faculty of Medicine Siriraj Hospital, Mahidol University, Thailand)

March 2, 2019 (Sat) $9:50 \sim 10:50$ Room 11 (Room C-2/Kyoto International Conference Center 1F) English Session 4 (EngO4)

Chair Takashi Tagami (Department of Emergency and Critical Care Medicine, Nippon Medical School Tama Nagayama Hospital, Japan)

EngO4-1 Effectiveness of delta Saturation of brain tissue (StO2) in pre-hospital settings: Pilot study

Jumpei Tsukuda, Takeshi Kawaguchi, Seitaro Sugawara, Kentaro Okamoto, Takaki Naito, Takuro Endo, Kenichiro Morisawa, Nobuhiko Shimozawa, Shigeki Fujitani, Yasuhiko Taira (Department of Emergency and Critical Care Medicine, St. Marianna University School of Medicine, Japan)

EngO4-2 Recognition of low body temperature and its association with outcome in bacteremic patients admitted to emergency and critical care center

Nobuaki Shime, Satoshi Yamaga (Department of Emergency and Critical Care Medicine, Hiroshima University, Japan)

EngO4-3 Synergistic cytoprotection by co-treatment with dexamethasone and rapamycin against inflammatory cytokine-induced alveolar epithelial cell injury

Kyungho Chang¹, Ken Kuwajima², Ai Furuta², Masahiko Bougaki², Yoshitsugu Yamada², Shigehito Sawamura¹ (1. Anesthesiology and Intensive Care Unit, Teikyo University School of Medicine, Japan, 2. Anesthesiology and Pain Relief Center, University of Tokyo Hospital, Japan)

EngO4-4 Crucial role of IL-1R signaling in neutrophils to increase lung permeability in LPS/mechanical ventilation acute lung injury

Nobuyuki Nosaka, Timothy R Crother, Shuang Chen, Moshe Arditi, Kenichi Shimada (Department of Pediatrics, Cedars-Sinai Medical Center, USA)

EngO4-5 Mortality prediction among sepsis patients using a combination of qSOFA, National Early Warning Score, age, gender and serum lactate levels

Chie Tanaka, Takashi Tagami, Shin Sato, Akiko Takehara, Junya Kaneko, Reo Fukuda, Saori Kudo, Masamune Kuno, Kyoko Unemoto (Department of Emergency and Critical Care Medicine, Nippon Medical School Tamanagayama Hospital, Japan)

EngO4-6 Nebulized adrenaline attenuates lung alveolar and interstitial edema compared to phenylephrine and salbutamol in ovine burn and smoke inhalation injury model

Satoshi Fukuda^{1,2}, Koji Ihara^{1,3}, Yosuke Niimi^{1,3}, Ernesto Lopez¹, Keibun Liu¹, Clark R. Andersen^{1,4}, Robert A. Cox^{2,5}, David N. Herndon^{1,2}, Donald S. Prough^{1,2}, Perenlei Enkhbaatar^{1,2} (1. Department of Anesthesiology, University of Texas Medical Branch at Galveston, USA, 2. Shriners Hospital for Children, USA, 3. Department of Plastic and Reconstructive Surgery, Tokyo Women's Medical University, Japan, 4. Department of Preventive Medicine & Community Health, Office of Biostatistics, University of Texas Medical Branch, Galveston, USA, 5. Department of Pathology, University of Texas Medical Branch, Galveston, USA)

March 2, 2019 (Sat) $10:55\sim11:55$ Room 11 (Room C-2/Kyoto International Conference Center 1F) English Session 5 (EngO5)

Chair Hideo Inaba (Department of Circulatory Emergency and Resuscitation Science, Kanazawa University Graduate School of Medicine, Japan)

EngO5-1 Feeding practices of mechanically ventilated intensive care patients: an evaluation of overfeeding and clinical outcomes

Aiko Tanaka^{1,2}, Kate Hamilton³, Glenn Eastwood², Daryl Jones², Rinaldo Bellomo² (1. Department of Anesthesiology and Intensive Care Medicine, Osaka University, Japan, 2. Department of Intensive Care, Austin Hospital, Australia, 3. Nutrition and Dietetic Department, Austin Hospital, Australia)

- EngO5-2 Efficacy and safety of fibrinogen concentrate in patients with hemorrhagic shock: a single-center experience
 Masakazu Nitta, Hiroshi Endoh, Tadayuki Honda, Hiroki Shimizu, Hiroyuki Honda, Yoshifumi Hoshino, Takashi
 Hazama, Natsuo Kamimura (Niigata University Medical and Dental Hospital, Advanced Disaster Medicine and
 Emergency Critical Care Center, Japan)
- EngO5-3 Circulating activated protein C levels in septic patients treated with recombinant human soluble thrombomodulin Takuro Arishima¹, Takashi Ito^{1,2}, Tomotsugu Yasuda¹, Nozomi Yashima³, Chinatsu Kamikokuryo³, Hiroaki Furubeppu¹, Takahiro Futatsuki¹, Hiroyuki Haraura¹, Ikuro Maruyama², Yasuyuki Kakihana^{1,3} (1. Emergency and Critical Care Center, Kagoshima University Hospital, Japan, 2. Systems Biology in Thromboregulation, Kagoshima University Graduate School of Medical and Dental Sciences, Japan, 3. Emergency and Intensive Care Medicine, Kagoshima University Graduate School of Medical and Dental Sciences, Japan)
- EngO5-4 Association of liver enzyme with morbidity and mortality in traumatic liver injury patients
 Ginthasuphang Wangsapthawi, Kaweesak Chittawatanarat (Division of Surgical Critical Care and Trauma,
 Department of Surgery, Faculty of Medicine, Chiang Mai University, Thailand)
- EngO5-5 A new predictive equation for resting energy expenditure in mechanically ventilated Thai patients

 Phoonsak Limraksasin¹, Napplika Kongpolprom² (1. Division of Critical Care Medicine, Department of Anesthesiology, King Chulalongkorn Memorial Hospital, Thailand, 2. Division of Pulmonary and Critical Care Medicine, Department of Medicine, King Chulalongkorn Memorial Hospital, Thailand)
- EngO5-6 Comparison of measured energy expenditure using indirect calorimetry versus predictive equations for liver transplant recipients

Seok-Joon Lee¹, Hak-Jae Lee², Yooun-Joong Jung², Minkyu Han³, Suk-Kyung Hong² (1. College of Medicine, University of Ulsan, Korea, 2. Division of Acute Care Surgery, Department of Surgery, University of Ulsan College of Medicine, Asan Medical Center, Korea, 3. Department of Clinical Epidemiology and Biostatistics, University of Ulsan, Korea)

March 2, 2019 (Sat) $14:00 \sim 15:00$ Room 11 (Room C-2/Kyoto International Conference Center 1F) English Session 6 (EngO6)

Chair Takeshi Suzuki (Department of Anesthesiology, Keio University School of Medicine, Japan)

EngO6-1 Evaluation of clinical pharmacist intervention in surgical intensive care unit

Jiyoung Kim, Jonghee Ko, Soohyun Kim, Eunsun Son, Jeongmin Kim, Sungwon Na (Department of Pharmacy, Anesthesiology and Pain Medicine, Yonsei University College of Medicine, Korea)

- EngO6-2 A unique strategy for large bowel perforation with ventriculo-peritoneal shunt: Conversion to ventriculo-atrial shunt Shota Akabane, Hirokazu Iijima, Shoichi Nakajima, Yukari Kobayashi, Kazunao Watanabe (Tokyo Nishi Tokushukai Hospital, Japan)
- EngO6-3 Influenza-associated septic shock accompanied by septic cardiomyopathy that developed in summer and mimicked fulminant myocarditis

Kei Suzuki, Ryo Esumi, Kaoru Ikejiri, Asami Ito, Yoshiaki Iwashita, Ken Ishikura, Masaki Fujioka, Hiroshi Imai (Mie University Hospital, the Emergency and Critical Care Center, Japan)

EngO6-4 Association between appropriate empiric antimicrobial therapy and mortality from bloodstream infections in the intensive care unit

Satoshi Yamaga, Nobuaki Shime, Shinichiro Ohshimo (Department of Emergency and Critical Care Medicine, Graduate School of Biomedical and Health Sciences, Hiroshima University, Japan)

EngO6-5 Effect of healthcare-associated infections on the length of pediatric intensive care unit stay

Takeshi Hatachi, Jumpei Okumura, Kota Yoshida, Mami Yamada, Takaaki Akamatsu, Masashi Taniguchi, Jun Takeshita, Kanako Isaka, Kazue Moon, Muneyuki Takeuchi (Osaka Women' s and Children' s Hospital, Japan)

EngO6-6 Open label prospective randomised control study of high cut point level of procalcitonin guided antibiotic therapeutic protocol in surgical critically ill patients

Kaweesak Chittawatanarat, Narain Chotirosniramit, Kamtone Chandacham, Tidarat Jirapongcharoenlap, Rungnapa Peerakam, Mudjalin Areerug (Division of Surgical Critical Care and Trauma, Department of Surgery, Faculty of Medicine, Chiang Mai University, Thailand)

March 2, 2019 (Sat) $15:05 \sim 16:05$ Room 11 (Room C-2/Kyoto International Conference Center 1F) English Session 7 (EngO7)

Chair Kenji Wakabayashi (Department of Intensive Care Medicine, Tokyo Medical and Dental University, Japan)

EngO7-1 Characteristics of wound infections among patients injured during torrential rain and landslides, in the 2018 disaster in west Japan

Kazuya Kikutani¹, Michihito Kyo¹, Junji Itai¹, Shinji Kusunoki², Takao Yamanoue², Yasumasa Iwasaki³, Itsuo Nakagawa⁴, Hiroshi Naitou⁵, Masami Ishikawa⁶, Nobuaki Shime¹ (1. Department of Emergency and Critical Care Medicine, Graduate School of Biomedical and Health Sciences, Hiroshima University, Japan, 2. Emergency Department, Hiroshima Prefectural Hospital, Japan, 3. Emergency Department, Kure Medical Center and Chugoku Cancer Center, Japan, 4. Emergency Department, Chugoku Rosai Hospital, Japan, 5. Department of Emergency Medicine, Hiroshima Citizens Hospital, Japan, 6. Emergency Department, Kure Kyosai Hospital, Japan)

EngO7-2 Potential benefits of acute-phase cardiac rehabilitation in the intensive care unit for patients with cardiovascular disease -A retrospective observational study-

Nobuaki Hamazaki¹, Ryota Matsuzawa¹, Kohei Nozaki¹, Takafumi Ichikawa¹, Kentaro Kamiya², Kazumasa Miida¹, Tomotaka Koike³, Emi Maekawa⁴, Masayasu Arai⁵, Takashi Masuda² (1. Department of Rehabilitation, Kitasato University Hospital, Japan, 2. Department of Rehabilitation, Kitasato University School of Allied Health Sciences, Japan, 3. Intensive Care Center, Kitasato University Hospital, Japan, 4. Department of Cardiovascular Medicine, Kitasato University School of Medicine, Japan, 5. Department of Anesthesiology, Kitasato University School of Medicine, Japan)

EngO7-3 Influencing factors on the changes of ICU family members' satisfaction

Soyoung Yang¹, Hye Ri Choi³, In-Ho Yang¹, Mira Song¹, Jun Ki Min¹, Minji Lee¹, Yee Hyung Kim², Sung Wook Kang² (1. Department of Internal Medicine, Kyung Hee University Hospital at Gang Dong, Korea, 2. Department of Pulmonary and Critical Care Medicine, Kyung Hee University Hospital at Gang Dong, Korea, 3. School of Health in Social Science, University of Edinburgh, UK)

EngO7-4 Intergrated clinical reasoning assessment in simulation crisis management class

Kanya Kumwilaisak¹, Toonchai Indrambarya¹, Danai Wangsaturaka², Paweenuch Bootjeamjai¹ (1. Division of critical care, Department of Anesthesiology, King Chulalongkorn Memorial Hospital, Thailand, 2. Department of Pharmacology Faculty of Medicine, Chulalongkorn University, Thailand)

EngO7-5 The epidemiology and characteristics of acute kidney injury in the intensive care unit in resource limited settings: A prospective multicenter study

Nattachai Srisawat^{1,2}, Win Kulvichit^{1,2}, Noppathorn Mahamitra¹, Cameron Hurst³, Kearkiat Praditpornsilpa¹, Nuttha Lumlertgul¹, Kriang Tungsanga¹, Somchai Eiam-Ong¹, Visith Sitprija^{1,4}, John A Kellum², Konlawij Trongtrakul⁵, SEA-AKI study group (1. Division of Nephrology, Department of Medicine, Faculty of Medicine, Chulalongkorn University, and King Chulalongkorn Memorial Hospital, Thailand, 2. Center for Critical Care Nephrology; The CRISMA Center, Department of Critical Care Medicine, University of Pittsburgh School of Medicine, USA, 3. Statistics Unit, QIMR Berghofer Medical Research Institute, Australia, 4. Queen Saovabha Memorial Institute, Thai Red Cross, Thailand, 5. Vajira Hospital, Navamindradhiraj University, Thailand)

EngO7-6 Predictive factors of abnormal finding detected by computerized tomography scan of brain among medical critically ill patients

Surat Tongyoo¹, Meitee Vichutavate¹, Tipa Chakorn², Chairat Permpikul¹ (1. Department of Internal Medicine, Faculty of Medicine, Siriraj Hospital, Mahidol University, Thailand, 2. Department of Emergency Medicine, Faculty of Medicine, Siriraj Hospital, Mahidol University, Thailand)

March 2, 2019 (Sat) $16:10\sim17:10$ Room 11 (Room C-2/Kyoto International Conference Center 1F) English Session 8 (EngO8)

Chair Takaki Naito (Department of Emergency and Critical Care Medicine, St. Marianna University School of Medicine, Japan)

EngO8-1 Newly introduced educational program on coping with ICU surge during the Mass Casualty Incident

Takamitsu Kodama¹, Eiji Kawamoto², Yasuhiro Irie³, Yoichi Kase⁴, Masashi Nakagawa⁵ (1. Aichi Medical University, Center for Disaster Medical Sciences, Japan, 2. Mie University Hospital, Medical Emergency Center, Japan, 3. Seirei Yokohama Hospital, Department of Emergency Medicine, Japan, 4. Jikei University Kashiwa Hospital, Department of Anesthesiology, Japan, 5. Tokyo Women's Medical University, Department of Intensive Care Medicine, Japan)

EngO8-2 Development of an easy-to-use questionnaire for critical care nursing competence related to patient safety in Japan: a cross-sectional study

Masatoshi Okumura¹, Tomonori Ishigaki², Kazunao Mori¹, Yoshihiro Fujiwara¹ (1. Department of Anesthesiology, Aichi Medical University, Japan, 2. Department of Business Administration, Nanzan University, Japan)

EngO8-3 The patient's life inside hospital difference between Japan and Thailand

Nobuichiro Tamura¹, Tawatchai Impool²(1. Kurashiki Central Hospital, Japan, 2. KhonKaen Hospital, Thailand)

EngO8-4 Successful management fatal systemic air embolism of CT-guided lung biopsy: Case report

Yi-Pin Chou^{1,3,4}, Tung-Ho Wu^{2,3}, Hsing-Lin Lin³ (1. Division of Thoracic Surgery, Department of Surgery, Veterans General Hospital, Taiwan, 2. Division of Cardiovascular Surgery, Department of Surgery, Veterans General Hospital, Taiwan, 3. Department of Critical Care Medicine, Veterans General Hospital, Taiwan, 4. Division of Trauma, Department of Emergency, Veterans General Hospital, Taiwan)

EngO8-5 Trauma system including trauma center: a death review from premature trauma center in Korea

Byungchul Yu, Mina Lee, Giljae Lee, Jungnam Lee (Gachon University Gil Medical Center, Korea)

EngO8-6 Effects of an isotonic balanced sodium solution and acetated Ringer's solution on the incidence of hyponatremia in patients who have cardiac surgery

Sunthiti Morakul¹, Naruemol Prachanpanich¹, Piyarat Sittiwanna¹, Sumethee Jiraratkul² (1. Department of Anesthesiology, Faculty of Medicine, Ramathibodi Hospital, Mahidol University, Thailand, 2. Department of Surgery, Faculty of Medicine, Ramathibodi Hospital, Mahidol University, Thailand)