

# JRC NEWSLETTER

Volume 2 No 1. (English ed.) February 21, 2018



Japan Resuscitation Council

# Contents

<b>A digest of ALS in the JRC 2015 guidelines . . . . .</b>	<b>1</b>
Mayuki Aibiki, Auditor of the Japan Resuscitation Council (Ehime University )	
<b>Issue : Critical care of mothers . . . . .</b>	<b>2</b>
Gen Ishikawa (Nippon Medical School Chiba Hokusoh Hosp)	
<b>Maternal Death in Japan . . . . .</b>	<b>3</b>
Junichi Hasegawa (St. Marianna University School of Medicine)	
<b>Cardiac arrest during pregnancy from the viewpoint of critical care medicine. . . .</b>	<b>4</b>
Atsushi Sakurai (Nihon University School of Medicine), et al.	
<b>Management of maternal cardiac arrest including perimortem cesarean section. . .</b>	<b>5</b>
Katsuo Terui (Saitama Medical Center)	
<b>The difference of Japanese consensus and the world consensuses about maternal cardiac arrest. . . . .</b>	<b>7</b>
Tomoyuki Yamashita (Japanese Red Cross Medical Center)	
<b>The current situation of perimortem cesarean delivery in Japan . . . . .</b>	<b>8</b>
Jun Murotsuki (Miyagi Children's Hospital)	
<b>J-CIMELS : background of establishment and current activity status. . . . .</b>	<b>9</b>
Akihiko Sekizawa (Showa University School of Medicine)	
<b>Nepal inspection . . . . .</b>	<b>10</b>
Kazuo Okada, Emeritus President of the Japan Resuscitation Council	
<b>Editorial Note . . . . .</b>	<b>12</b>
Masao Nagayama, Secretary-General of the Japan Resuscitation Council (International University of Health and Welfare School of Medicine)	

## the Editorial Board

### < Editor in chief >

Hiroshi Nonogi (Shizuoka General Hospital )

### < Members of editorial board >

Migaku Kikuchi (Dokkyo Medical University Hospital)  
Toshiki Sera (Hiroshima Prefectural Hospital)  
Satoshi Takeda (Jikei University School of Medicine)  
Masao Nagayama (International University of Health and Welfare School of Medicine)  
Eisei Hoshiyama (Dokkyo Medical University Hospital)

## A digest of ALS in the JRC 2015 guidelines

**Mayuki Aibiki MD, PhD.**

**Auditor of the Japan Resuscitation Council (JRC),  
Chair of the Department of Emergency and Critical Care Medicine,  
Ehime University Graduate School of Medicine.  
Vice-President of Ehime University Hospital.**



### Revised ALS recommendations from 2010 GLs guideline (GLs) :

- 1) subsequently increase cardioversion energy if ineffective for VF/pVTs;
- 2) supply high possible oxygen concentration during CPR, but need adjusted normal PaO<sub>2</sub> after ROSC; a capnography, a monitor for ROSC and endotracheal tube (ET) placement, should not be applied on prognostication during CPR;
- 3) any chest compression devices should not be employed routinely, but is indicated for maintaining the compression quality or avoiding harm to CPR providers; ECPR could be a choice for persistent CPAs if regulated by criteria;
- 4) echocardiography could detect causes of CA, also reveal ET positioning;
- 5) Adrenalin should be given soon, especially for the non-shockables; Amiodarone might be effective for persistent VF/pVTs, but if not work nifekalant or lidocaine could be an alternative, but which might be changed in 2020.
- 6) TM should be lasted for at least 24 hours at a level between 32 and 36 centigrade; A 2017 study testing effects of 24 vs 48 hours at 33 centigrade showed no neurological benefits, but includes intriguing results that have been described in an editorial (1). Kaneko et al. reported merits from hypothermia in OHCAs <30 minutes (2), so further studies are needed.

### Perspectives for 2020 GLs

ILCOR has introduced the continuous evidence evaluation in the CoSTR development, which provides the newest information. Thus, JRC has reformed the GLs generating system. The PICO question will be modified to PICOST (PICO + Study design and Time frame); also, the number of PICOs has been reduced for concentrating on progressive issues.

#### Reference:

- 1) Aibiki M. Editorial for the paper of Dr. Hans Kirkegaard et al. JAMA 2017; 318: 341-50. J Emerg Crit Care Med 2017. doi: 10.21037/jccm.2017.11.02.
- 2) Kaneko T, Kasaoka S, Nakahara T, et al. Effectiveness of lower target temperature therapeutic hypothermia in post-cardiac arrest syndrome patients with a resuscitation interval of ≤ 30 min. J Intensive Care. 2015; 3(1): 28. doi:10.1186/s40560-015-0095-2.

# Issue : Critical care of mothers

## From the 10<sup>th</sup> J-ReSS Symposium 1 “Critical care of mothers”

(17 July, 2017 in Yokohama)

The symposium session entitled the Critical Care of Mothers was held in the 10th Japan Resuscitation Science Symposium on 17 July, 2017 in Yokohama.

In this session, six experts presented and reviewed topics. JH showed the achievement of the nationwide registration system of maternal deaths, underlined the reality that one-fourth of maternal deaths were due to postpartum hemorrhage (PPH) and also showed the reality that the most frequent period of onset of CPA were 1 to 3 hours after initial symptoms of PPH. JH highlighted the importance of immediate hemostasis, blood transfusion and maternal transport. KT showed the topic of the AHA Scientific Statement: Cardiac Arrest in Pregnancy (Circulation. 2015;132:1747-1773). In this topic the importance of manual left uterine displacement (LUD) and consideration of perimortem cesarean delivery (PMCD) while resuscitation were discussed. AtS showed the reality that poor prognosis after ROSC was often seen in case of maternal cardiac arrest of non-cardiac origin because of antecedent cerebral ischemia. In addition, AtS cast the idea of developing maternal RSS for in-hospital and “obstetric bypass” for primary healthcare level especially for maternal emergency. TY reviewed the JRC Guidelines 2015 comparing to AHA, ERC, ANZCOR Guidelines and CoSTR 2015. Other than guidelines, TY also reviewed the Consensus Statement of Society for Obstetric Anesthesia Perinatology in 2014 and the AHA Scientific Statement: Cardiac Arrest in Pregnancy. TY highlighted importance of accumulating evidence of maternal emergency cases and establishing clinical strategy for beneficial outcome. JM showed the results of survey work by the Liaison Council of MFICU in Japan. In this survey, the fact that 18 PMCD cases existed was revealed. Among them, twelve cases obtained ROSC after PMCD and three were survived in intact. In this topic, JM speculated efficacy of Extra-corporeal Life Support on this field. AkS showed the dissemination project of maternal emergency life support course program (J-MELS) by Japan Council for Implementation of Maternal Emergency Life Support System (J-CIMELS). It is expected that prognosis of maternal emergency could be improved by spreading those courses; J-MELS basic and advanced.

Although problem that remains to be solved has been still in Japan, maternal mortality ratio is in the lowest group in the world. In Japan more than half of all deliveries are managed not in tertiary care center, but in private clinics operated by one or two obstetricians. The secret and endeavor of low mortality in Japan should be analyzed and proved to the world. So that, it could lead to contribution of improvement of maternal mortality in the world.

**Gen Ishikawa, MD, PhD.**

**Senior Assistant Professor, Nippon Medical School Chiba Hokusoh Hosp.**



**From the 10<sup>th</sup> J-ReSS Symposium 1 “Critical care of mothers” (17 July, 2017 in Yokohama)**

## **Maternal death in Japan**

**Junichi Hasegawa, MD, PhD.**

**Associate Professor, St. Marianna University School of Medicine**

The current maternal mortality rate in Japan, which is estimated to be around 4 in 100,000 deliveries, is similar to that in other developed countries. In 2010, the Japan Association of Obstetricians and Gynecologists (JAOG) established a registration system and the Maternal Death Exploratory Committee to further reduce the number of maternal deaths. In order to provide information that could help in the prevention of maternal deaths, and to improve the quality of obstetric health care, the Committee conducted a causal analysis of each maternal death and reported its recommendations for general obstetrical practice by which the number maternal deaths due to similar causes could be reduced. Maternal deaths were frequently caused by obstetric hemorrhage (23%), stroke (16%), amniotic fluid embolism (12%), cardiovascular disease (8%) and pulmonary disease (8%). The committee considered that it was impossible to prevent death in 51% of the cases, whereas they considered prevention in 26%, 15% and 7% of the cases to be slightly, moderately and highly possible, respectively. It was difficult to prevent maternal deaths due to amniotic fluid embolism and stroke. In contrast, half of the deaths due to obstetric hemorrhage were considered preventable, because the peak duration between the initial symptoms and initial cardiopulmonary arrest was 1-3 hours. A range of measures, including individual education and the construction of good relationships among regional hospitals, should be established in the near future to improve primary care for patients with maternal hemorrhage and to save the lives of mothers in Japan.



From the 10<sup>th</sup> J-ReSS Symposium 1 “Critical care of mothers” (17 July, 2017 in Yokohama)

## Cardiac arrest during pregnancy from the viewpoint of critical care medicine

Atsushi Sakurai<sup>1,8)</sup>, Yasufumi Miyake<sup>2,8)</sup>, Tomoaki Ikeda<sup>3,8)</sup>, Atsunori Yamahata<sup>4,8)</sup>, Akihiko Sekizawa<sup>5,8)</sup>, Junichi Hasegawa<sup>6,8)</sup>, Takashi Okai<sup>7,8)</sup>

1. Division of Emergency and Critical Care Medicine Department of Acute Medicine, Nihon University School of Medicine

2. Department of Emergency Medicine, Teikyo University Hospital

3. Department of Obstetrics and Gynecology Mie University Faculty of Medicine

4. Department of Emergency Medicine, Kyoto Prefectural University of Medicine

5. Department of Obstetrics and Gynecology Showa University School of Medicine

6. Department of Obstetrics and Gynecology St. Marianna University School of Medicine

7. Aiiiku Hospital

8. Japan Council for Implementation of Maternal Emergency Life-Saving System (J-CIMELS)

### Background

In general, good neurological outcome is predicted for most cardiac arrest (CA) patients with cardiac etiology (ischemic heart disease, arrhythmia, etc.). On the other hand, poor neurological outcome is often predicted for many patients with non-cardiac etiology caused by hypoxia and hypo-perfusion. Hasegawa et al. reported that the cause of maternal deaths is frequently related to non-cardiac etiology (Hasegawa, BMJ, 2016). Subsequently, many pregnant women who succumb to maternal death may have already suffered from brain ischemia caused by hypoxia and hypo-perfusion prior to CA. In such cases, poor outcome can be predicted. Treatment prior to CA occurrence should be actively pursued.

### Rapid Response System (RRS)

To prevent CA at a medical institute, RRS has recently emerged worldwide and become the first link in the chain of survival according to the 2015 American Heart Association Guideline. More than half of all deliveries are handled at private clinics operated by one, sometimes two, obstetricians. Depending on the RRS policy, a critical pregnant patient should be transferred from a clinic to an advanced medical institute prior to CA occurrence. Therefore establishing clear criteria for emergency transfer of critical pregnant patients from a clinic to an advanced medical institute prior to CA occurrence and a safe transport system, such as an ambulance with a doctor onboard, is considered important.

### Transport to an advanced medical institute

Treatment for CA, difficult airway, respiratory failure, massive hemorrhage with coagulopathy, etc. involving a critical pregnant patient should be handled at an advanced medical institute. Consequently collaboration between the obstetrician and the medical staff, including the emergency physician, anesthesiologist, other surgeons and the intensivist. Equipment such as a rapid infusion fluid warming device, massive transfusion system, ventilator, blood purification device and ECMO should be on hand. Discussion on obstetric bypass, similar to trauma bypass, where the most critically ill trauma patients bypass closer hospitals and are transported directly to a trauma center and are treated by an advanced medical staff and equipment is needed. When establishing an obstetric bypass system, simultaneous consideration of the criteria for emergency transport from a clinic in order to prevent CA during transport to a distant advanced medical institute. Hence, over-triage should be allowed and critical pregnant patients with stable vital signs should be transported at an earlier point. Further study regarding the acceptable

patient ratio of over-triage for each region.

**Establishment of a system for each region**

In the establishment of an obstetric transport system to prevent maternal death, conditions may vary by individual region in Japan. Consequently collaboration between the medical management council and the perinatal medical council in each region in order to appropriately assign advanced medical institutes, establish the transport criteria and maintain the obstetric transport system.



**From the 10<sup>th</sup> J-ReSS Symposium 1 “Critical care of mothers” (17 July, 2017 in Yokohama)**

## **Management of maternal cardiac arrest including perimortem cesarean section**

**Katsuo Terui, MD, PhD.**

**Professor, Saitama Medical Center, Saitama Medical University**

The most important point in managing maternal cardiac arrest is high quality CPR with effective chest compressions and immediate AED. AED can be safely applied during pregnancy with standard energy. JRC resuscitation guideline 2015 basically followed ILCOR consensus statement, and suggested perimortem cesarean section with weak recommendation and very weak evidence. The guideline did not make any recommendation on left pelvic tilt or left uterine displacement because of inadequate evidence.

AHA guideline on maternal cardiac arrest in 2015 is one of the most detailed guidelines for pregnant women. It takes into consideration physiological changes during pregnancy and findings from obstetric anesthesia literature. BLS for in-hospital maternal cardiac arrest begins with emergency call by witnessing unresponsive, apneic or abnormal breathing pattern patient with fundal height above umbilicus. First responder must call for at least 3 persons and emergency cart. Maternal ACLS team needs to be called for at the same time. High quality chest compression is the first step, with the patient in supine position. Once extra hands are available, US guideline recommends manual left uterine displacement by one or two hands, but not tilting the patient table. Left uterine displacement is expected to relieve aortocaval compression by gravid uterus. It recommends CPR sequence as C-A-B-U(uterine displacement). Perimortem cesarean section is the extreme way of increasing venous return during CPR. PMCD should be strongly considered for every mother in whom ROCS has not been achieved after about 4 minutes of resuscitative efforts (Class IIa, LOE C).





From the 10<sup>th</sup> J-ReSS Symposium 1 “Critical care of mothers” (17 July, 2017 in Yokohama)

## **The difference of Japanese consensus and the world consensuses about maternal cardiac arrest**

**Tomoyuki Yamashita, MD.**

**Dept. of Emergency and Critical Care Medicine, Japanese Red Cross Medical Center**

Japan Resuscitation Council Resuscitation Guidelines 2015 (JRC 2015) suggest cesarean delivery of the fetus for women of late pregnancy in the situation of cardiac arrest. However, there is no suggestion for left uterine displacement (LUD) nor timing of fetus delivery.

In the American Heart Association (AHA) Guidelines 2015, LUD and preparation of Cesarean section right after cardiac arrest is recommended. Cesarean delivery should be considered at 4 minutes after onset of maternal cardiac arrest or resuscitative efforts if ROSC is not seen. The cesarean delivery should not be delayed even if maternal resuscitation is futile. Systematic preparation and training is crucial to meet these recommendations. Heart & Stroke Foundation of Canada (HSFC) Guideline is roughly similar to AHA 2015.

In comparison to AHA, European Resuscitation Council (ERC) guidelines 2015 allows left lateral tilt instead of LUD, if high-quality chest compression can be continued. It also recommends the position of chest compression to be slightly higher on the sternum in third trimester of pregnancy. ERC 2015 recommends emergency hysterotomy or Caesarean section for delivery of fetus within 5 minutes, and also emphasizes the importance of difficult airway management, intravascular access above the diaphragm and regular training to prepare for obstetric emergencies. Australian and New Zealand Council of Resuscitation (ANZCOR) guideline 2011 has similar recommendations. In addition to guidelines, Society for Obstetric Anesthesia Perinatology Consensus Statement 2014 and AHA Scientific Statement 2015, have detailed recommendations that answer clinically significant questions. Next guidelines of JRC, we need to consider including details and how to educate new consensuses.



From the 10<sup>th</sup> J-ReSS Symposium 1 “Critical care of mothers” (17 July, 2017 in Yokohama)

## **The current situation of perimortem cesarean delivery in Japan**

**Jun Murotsuki**

Department of Maternal and Fetal Medicine, Tohoku University Graduate School of Medicine, Miyagi Children's Hospital

### **[Objective]**

Perimortem cesarean delivery (PCD) is a cesarean section performed during maternal cardiac arrest to increase the chance of successfully resuscitating the mother. The aim of this study was to investigate the actual conditions, results, and problems of PCD conducted in Japan.

### **[Study design]**

We sent a primary survey form to 187 secondary and tertiary perinatal centers and examined the number of PCD. Then, we sent a secondary survey form to the facility that responded to the primary survey, and investigated the details of PCD.

### **[Results]**

There were 18 cases in 14 facilities of PCD identified; 10 in-hospital cases and 8 out-of-hospital cases. Of 18 PCD with potentially resuscitable cases, 8 cases of mothers were resuscitated and survived, but only 5 cases discharged from the hospital in good condition. Four other mothers were successfully resuscitated after PCD, but died from complications of atonic bleeding and multiple organ failure. The major causes of maternal cardiac arrest are peripartum cardiomyopathy, lung edema, aortic dissection. Fifteen infants survived (3 sets of twin); 2 other infants survived initially, but died several days after the deliveries.

### **[Conclusion]**

PCD within 5 minutes of maternal cardiac arrest improves maternal and neonatal outcomes. For any indication of maternal cardiac arrest, the cesarean delivery should be performed.



**From the 10<sup>th</sup> J-ReSS Symposium 1 “Critical care of mothers” (17 July, 2017 in Yokohama)**

## **J-CIMELS : background of establishment and current activity status**

**Akihiko Sekizawa, MD, PhD**

**Department of Obstetrics and Gynecology, Showa University School of Medicine**

The Japan Association of Obstetricians and Gynecologists (JAOG) established a registration system and the Maternal Death Exploratory Committee in 2010 to reduce the number of maternal deaths. The Committee continues conducting causal analysis for each maternal death. The most frequent cause of maternal deaths between 1992 and 2017 was postpartum hemorrhage (PPH) although the maternal mortality rate associated with PPH reduced from 38% to 22%. Of all maternal deaths, half occurred after delivery or cesarean section. In the PPH cases, interval between initial symptoms and cardiopulmonary arrest is not too short, and its peak duration was 1–3 h. No cases of PPH were recorded wherein cardiopulmonary arrest occurred within 30 min. Therefore, the committee considers that improvement of the management of PPH can reduce the maternal mortality rate. Vital signs and the amount of bleeding should be immediately determined; efficient primary care, including hemostasis, vital care, and primary resuscitation are required. The committee announced to remind the importance of vital signs as one of the recommendations. Thus, the committee made recommendations for saving mothers' lives in each year through the analyses of maternal deaths. However, the number of maternal death was 40-50 cases in each year and did not decrease despite of these efforts. Because it is important to consider changes in vital signs at the early stage and subsequent initial treatment, the committee thought that daily training and simulation enable us to take prompt action during real emergencies. Therefore, the Japan Council for Implementation of Maternal Emergency Life-Saving System (J-CIMELS) has established in 2015 to reduce maternal mortality rate. The aim of the simulation course organized by J-CIMELS is for all caregivers in delivery service to understand maternal conditions and develop skills regarding primary care for maternal emergency with the help of doctors well trained in emergency medicine. We recommended that all caregivers in delivery service should participate in this course and improve their skills for safe management of women during pregnancy and labor. We believe that maternal death rate in Japan will gradually decrease through the activity of J-CIMELS.

## Nepal inspection

**Kazuo Okada**

**Emeritus Chair, Japan Resuscitation Council**

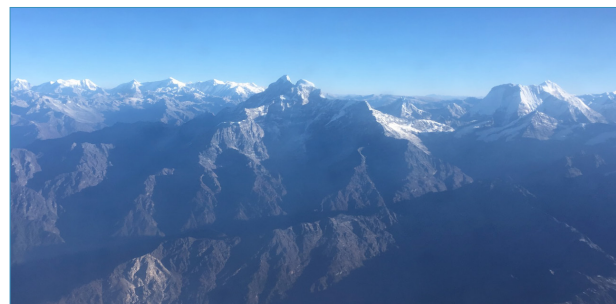
I could have the chance to visit Nepal in October of 2017.

This country is geographically situated in west part of Asia. As I have worked for ILCOR since 2000, new Co-chairs, Prof. Neumar and Gavin strongly insisted that next coming 2015 to 2020, ILCOR should cover globally. Not only several countries but also all territory should be covered by ILCOR system in the world.

However, RCA could not include all Asian countries, Taiwan, Korea, Japan and Singapore were the founding countries in 2005 RCA establishment. Since then Philippine, Thailand, and Hong Kong joined to this Organization.

While urgent request for assembling all countries in territory of RCA, still it could not be accomplished until now.

Chair of Nepal Resuscitation Council Dr. Maharjan visited me at RCA General Assembly held in Singapore on February 2016.



This is the first time to meet him and he expressed to join to RCA. He is eagerly explained that RCA membership is important to advance Nepal CPR with the international collaboration of RCA. He explained that the Government could more easily understand the importance of resuscitation and will be more expand the activity to CPR in Nepal.

**NADEM Special CME & CPD Program**  
**"Importance of CPR in Nepal and Asia"**  
**19<sup>th</sup> October 2017, Thursday**  
**NADEM Center, Balkumari, Lalitpur**

**नेपाल विज्ञान एण्ड इमर्जेन्सी मेडिसिन सेन्टर**  
**NEPAL**  
**DISASTER AND EMERGENCY MEDICINE**  
**CENTER**

Time	Topic & Program	International and National Speakers	Remarks
10:00	Registration of Participants	International and National participants	Fill the form for CPD on BELS
10:30	Welcome to International and National Guests	NADEM Team and Special NADEM CME & CPD Participants	Welcome by Newari and Nepali Culture
10:45	Warm welcome	NADEM Center	Refreshment: Tea and Coffee
11:00	Welcome Speech	Dr Ramesh Kumar Maharjan, Emergency Physician	Founder Chief Coordinator, NADEM Center
11:05	Importance of CPR development in Asia and RCA updates	Prof Kazuo Okada JRC Emeritus Chair, RCA Emeritus Chair	The History of CPR and the ancient stories of CPR
11:35	Education support and communication projects to Nepal	Prof Hiroaki Kagawa Consultant of Okayama University Alpine Club, Emeritus Professor of Okayama University (Molecular Biology)	This started 2008 and continued to 2016
11:50	Updates on CPR Guidelines learning from the World	Dr Gentle S Shrestha MD, FACC, EDIC, FCCP	Updates of CPR Guidelines
12:05	Importance of CPR in Nepal	Dr Ramesh Kumar Maharjan MD, DM	I'm Ready – First Aid & CPR
12:15	Discussion + Thanks giving + Honor to International Guests Speakers		
12:30	Lunch	Join together for Nepali Lunch	
13:00	CPD on BELS	Hands on Training	Pre & Post Test then Certification
17:00	Closing Ceremony and CME & CPD Certification Distribution		

- CPD = Continue Professional Development
- ©NADEM BELS = ©Basic Emergency Life Support
- ©NADEM BELS = ©Advanced Emergency Life Support

Note: NADEM CME & CPD: Participants must fill the CPD on BELS Form, All Specialty of Medical, Nursing and Paramedics including Ayurveda and other allied medical healthcare interested can join the program with registration. Thank you for your kind cooperation.  
 Kindly contact Dr Shishak Koirala (9841469606) by Medical and Allied Team and Sambidhi Thapa (9860293095) by Nursing Team

Call: OrCA, Emergency Res: 987647465, 987647466, 987647467, 987647468, 987647469, 987647470, 987647471, 987647472, 987647473, 987647474, 987647475, 987647476, 987647477, 987647478, 987647479, 987647480, 987647481, 987647482, 987647483, 987647484, 987647485, 987647486, 987647487, 987647488, 987647489, 987647490, 987647491, 987647492, 987647493, 987647494, 987647495, 987647496, 987647497, 987647498, 987647499, 987647500, 987647501, 987647502, 987647503, 987647504, 987647505, 987647506, 987647507, 987647508, 987647509, 987647510, 987647511, 987647512, 987647513, 987647514, 987647515, 987647516, 987647517, 987647518, 987647519, 987647520, 987647521, 987647522, 987647523, 987647524, 987647525, 987647526, 987647527, 987647528, 987647529, 987647530, 987647531, 987647532, 987647533, 987647534, 987647535, 987647536, 987647537, 987647538, 987647539, 987647540, 987647541, 987647542, 987647543, 987647544, 987647545, 987647546, 987647547, 987647548, 987647549, 987647550, 987647551, 987647552, 987647553, 987647554, 987647555, 987647556, 987647557, 987647558, 987647559, 987647560, 987647561, 987647562, 987647563, 987647564, 987647565, 987647566, 987647567, 987647568, 987647569, 987647570, 987647571, 987647572, 987647573, 987647574, 987647575, 987647576, 987647577, 987647578, 987647579, 987647580, 987647581, 987647582, 987647583, 987647584, 987647585, 987647586, 987647587, 987647588, 987647589, 987647590, 987647591, 987647592, 987647593, 987647594, 987647595, 987647596, 987647597, 987647598, 987647599, 987647600, 987647601, 987647602, 987647603, 987647604, 987647605, 987647606, 987647607, 987647608, 987647609, 987647610, 987647611, 987647612, 987647613, 987647614, 987647615, 987647616, 987647617, 987647618, 987647619, 987647620, 987647621, 987647622, 987647623, 987647624, 987647625, 987647626, 987647627, 987647628, 987647629, 987647630, 987647631, 987647632, 987647633, 987647634, 987647635, 987647636, 987647637, 987647638, 987647639, 987647640, 987647641, 987647642, 987647643, 987647644, 987647645, 987647646, 987647647, 987647648, 987647649, 987647650, 987647651, 987647652, 987647653, 987647654, 987647655, 987647656, 987647657, 987647658, 987647659, 987647660, 987647661, 987647662, 987647663, 987647664, 987647665, 987647666, 987647667, 987647668, 987647669, 987647670, 987647671, 987647672, 987647673, 987647674, 987647675, 987647676, 987647677, 987647678, 987647679, 987647680, 987647681, 987647682, 987647683, 987647684, 987647685, 987647686, 987647687, 987647688, 987647689, 987647690, 987647691, 987647692, 987647693, 987647694, 987647695, 987647696, 987647697, 987647698, 987647699, 987647700, 987647701, 987647702, 987647703, 987647704, 987647705, 987647706, 987647707, 987647708, 987647709, 987647710, 987647711, 987647712, 987647713, 987647714, 987647715, 987647716, 987647717, 987647718, 987647719, 987647720, 987647721, 987647722, 987647723, 987647724, 987647725, 987647726, 987647727, 987647728, 987647729, 987647730, 987647731, 987647732, 987647733, 987647734, 987647735, 987647736, 987647737, 987647738, 987647739, 987647740, 987647741, 987647742, 987647743, 987647744, 987647745, 987647746, 987647747, 987647748, 987647749, 987647750, 987647751, 987647752, 987647753, 987647754, 987647755, 987647756, 987647757, 987647758, 987647759, 987647760, 987647761, 987647762, 987647763, 987647764, 987647765, 987647766, 987647767, 987647768, 987647769, 987647770, 987647771, 987647772, 987647773, 987647774, 987647775, 987647776, 987647777, 987647778, 987647779, 987647780, 987647781, 987647782, 987647783, 987647784, 987647785, 987647786, 987647787, 987647788, 987647789, 987647790, 987647791, 987647792, 987647793, 987647794, 987647795, 987647796, 987647797, 987647798, 987647799, 987647800, 987647801, 987647802, 987647803, 987647804, 987647805, 987647806, 987647807, 987647808, 987647809, 987647810, 987647811, 987647812, 987647813, 987647814, 987647815, 987647816, 987647817, 987647818, 987647819, 987647820, 987647821, 987647822, 987647823, 987647824, 987647825, 987647826, 987647827, 987647828, 987647829, 987647830, 987647831, 987647832, 987647833, 987647834, 987647835, 987647836, 987647837, 987647838, 987647839, 987647840, 987647841, 987647842, 987647843, 987647844, 987647845, 987647846, 987647847, 987647848, 987647849, 987647850, 987647851, 987647852, 987647853, 987647854, 987647855, 987647856, 987647857, 987647858, 987647859, 987647860, 987647861, 987647862, 987647863, 987647864, 987647865, 987647866, 987647867, 987647868, 987647869, 987647870, 987647871, 987647872, 987647873, 987647874, 987647875, 987647876, 987647877, 987647878, 987647879, 987647880, 987647881, 987647882, 987647883, 987647884, 987647885, 987647886, 987647887, 987647888, 987647889, 987647890, 987647891, 987647892, 987647893, 987647894, 987647895, 987647896, 987647897, 987647898, 987647899, 987647900, 987647901, 987647902, 987647903, 987647904, 987647905, 987647906, 987647907, 987647908, 987647909, 987647910, 987647911, 987647912, 987647913, 987647914, 987647915, 987647916, 987647917, 987647918, 987647919, 987647920, 987647921, 987647922, 987647923, 987647924, 987647925, 987647926, 987647927, 987647928, 987647929, 987647930, 987647931, 987647932, 987647933, 987647934, 987647935, 987647936, 987647937, 987647938, 987647939, 987647940, 987647941, 987647942, 987647943, 987647944, 987647945, 987647946, 987647947, 987647948, 987647949, 987647950, 987647951, 987647952, 987647953, 987647954, 987647955, 987647956, 987647957, 987647958, 987647959, 987647960, 987647961, 987647962, 987647963, 987647964, 987647965, 987647966, 987647967, 987647968, 987647969, 987647970, 987647971, 987647972, 987647973, 987647974, 987647975, 987647976, 987647977, 987647978, 987647979, 987647980, 987647981, 987647982, 987647983, 987647984, 987647985, 987647986, 987647987, 987647988, 987647989, 987647990, 987647991, 987647992, 987647993, 987647994, 987647995, 987647996, 987647997, 987647998, 987647999, 987648000, 987648001, 987648002, 987648003, 987648004, 987648005, 987648006, 987648007, 987648008, 987648009, 987648010, 987648011, 987648012, 987648013, 987648014, 987648015, 987648016, 987648017, 987648018, 987648019, 987648020, 987648021, 987648022, 987648023, 987648024, 987648025, 987648026, 987648027, 987648028, 987648029, 987648030, 987648031, 987648032, 987648033, 987648034, 987648035, 987648036, 987648037, 987648038, 987648039, 987648040, 987648041, 987648042, 987648043, 987648044, 987648045, 987648046, 987648047, 987648048, 987648049, 987648050, 987648051, 987648052, 987648053, 987648054, 987648055, 987648056, 987648057, 987648058, 987648059, 987648060, 987648061, 987648062, 987648063, 987648064, 987648065, 987648066, 987648067, 987648068, 987648069, 987648070, 987648071, 987648072, 987648073, 987648074, 987648075, 987648076, 987648077, 987648078, 987648079, 987648080, 987648081, 987648082, 987648083, 987648084, 987648085, 987648086, 987648087, 987648088, 987648089, 987648090, 987648091, 987648092, 987648093, 987648094, 987648095, 987648096, 987648097, 987648098, 987648099, 987648100, 987648101, 987648102, 987648103, 987648104, 987648105, 987648106, 987648107, 987648108, 987648109, 987648110, 987648111, 987648112, 987648113, 987648114, 987648115, 987648116, 987648117, 987648118, 987648119, 987648120, 987648121, 987648122, 987648123, 987648124, 987648125, 987648126, 987648127, 987648128, 987648129, 987648130, 987648131, 987648132, 987648133, 987648134, 987648135, 987648136, 987648137, 987648138, 987648139, 987648140, 987648141, 987648142, 987648143, 987648144, 987648145, 987648146, 987648147, 987648148, 987648149, 987648150, 987648151, 987648152, 987648153, 987648154, 987648155, 987648156, 987648157, 987648158, 987648159, 987648160, 987648161, 987648162, 987648163, 987648164, 987648165, 987648166, 987648167, 987648168, 987648169, 987648170, 987648171, 987648172, 987648173, 987648174, 987648175, 987648176, 987648177, 987648178, 987648179, 987648180, 987648181, 987648182, 987648183, 987648184, 987648185, 987648186, 987648187, 987648188, 987648189, 987648190, 987648191, 987648192, 987648193, 987648194, 987648195, 987648196, 987648197, 987648198, 987648199, 987648200, 987648201, 987648202, 987648203, 987648204, 987648205, 987648206, 987648207, 987648208, 987648209, 987648210, 987648211, 987648212, 987648213, 987648214, 987648215, 987648216, 987648217, 987648218, 987648219, 987648220, 987648221, 987648222, 987648223, 987648224, 987648225, 987648226, 987648227, 987648228, 987648229, 987648230, 987648231, 987648232, 987648233, 987648234, 987648235, 987648236, 987648237, 987648238, 987648239, 987648240, 987648241, 987648242, 987648243, 987648244, 987648245, 987648246, 987648247, 987648248, 987648249, 987648250, 987648251, 987648252, 987648253, 987648254, 987648255, 987648256, 987648257, 987648258, 987648259, 987648260, 987648261, 987648262, 987648263, 987648264, 987648265, 987648266, 987648267, 987648268, 987648269, 987648270, 987648271, 987648272, 987648273, 987648274, 987648275, 987648276, 987648277, 987648278, 987648279, 987648280, 987648281, 987648282, 987648283, 987648284, 987648285, 987648286, 987648287, 987648288, 987648289, 987648290, 987648291, 987648292, 987648293, 987648294, 987648295, 987648296, 987648297, 987648298, 987648299, 987648300, 987648301, 987648302, 987648303, 987648304, 987648305, 987648306, 987648307, 987648308, 987648309, 987648310, 987648311, 987648312, 987648313, 987648314, 987648315, 987648316, 987648317, 987648318, 987648319, 987648320, 987648321, 987648322, 987648323, 987648324, 987648325, 987648326, 987648327, 987648328, 987648329, 987648330, 987648331, 987648332, 987648333, 987648334, 987648335, 987648336, 987648337, 987648338, 987648339, 987648340, 987648341, 987648342, 987648343, 987648344, 987648345, 987648346, 987648347, 987648348, 987648349, 987648350, 987648351, 987648352, 987648353, 987648354, 987648355, 987648356, 987648357, 987648358, 987648359, 987648360, 987648361, 987648362, 987648363, 987648364, 987648365, 987648366, 987648367, 987648368, 987648369, 987648370, 987648371, 987648372, 987648373, 987648374, 987648375, 987648376, 987648377, 987648378, 987648379, 987648380, 987648381, 987648382, 987648383, 987648384, 987648385, 987648386, 987648387, 987648388, 987648389, 987648390, 987648391, 987648392, 987648393, 987648394, 987648395, 987648396, 987648397, 987648398, 987648399, 987648400, 987648401, 987648402, 987648403, 987648404, 987648405, 987648406, 987648407, 987648408, 987648409, 987648410, 987648411, 987648412, 987648413, 987648414, 987648415, 987648416, 987648417, 987648418, 987648419, 987648420, 987648421, 987648422, 987648423, 987648424, 987648425, 987648426, 987648427, 987648428, 987648429, 987648430, 987648431, 987648432, 987648433, 987648434, 987648435, 987648436, 987648437, 987648438, 987648439, 987648440, 987648441, 987648442, 987648443, 987648444, 987648445, 987648446, 987648447, 987648448, 987648449, 987648450, 987648451, 987648452, 987648453, 987648454, 987648455, 987648456, 987648457, 987648458, 987648459, 987648460, 987648461, 987648462, 987648463, 987648464, 987648465, 987648466, 987648467, 987648468, 987648469, 9



I could decide to visit Nepal and survey how is the organization of CPR training system. Following this survey I could recommend if Nepal has been well educated and trained CPR. I have arrived at Katmandu airport on 18th, October, 2017. Next day Prof. Maharjan organized Symposium 'Importance of CPR in Asia and Nepal', where I have presented 'the step to establish RCA' and Prof. Maharjan 'Preventive Emergency Medicine in Nepal' and Dr. Shrestha 'Updates on CPR Guidelines learning from the World' These presentations were followed 'AED demonstration and practice of AED usage' by a member of Nihon Kohden Co. Japan

After having passed the checking CPR knowledge and practice, BLS course started to candidates with several Instructors in the afternoon. This was organized by 'NADEM' (Nepal Disaster and Emergency Medicine Center), and 2017 is anniversary of NADEM 10th

years. 7 years has passed NCEM (Nepal Colleague of Emergency Medicine) since its establishment.

Training was almost the same as JRC, RCA Guidelines, but airway management seemed a little bit different from RCA Guidelines and CoSTR. This might be caused from Nepal instructor's deficit. As the summary of this course, it was almost the same to RCA, JRC Guidelines, but numbers of instructors are not enough. Urgent increase of instructors is mandatory in Nepal. AED has not been permitted to use for citizens by government, this could not enhance the increase of survival rate from arrested victims.. This may be financial problem which should be supported from the world, specially from Japan.

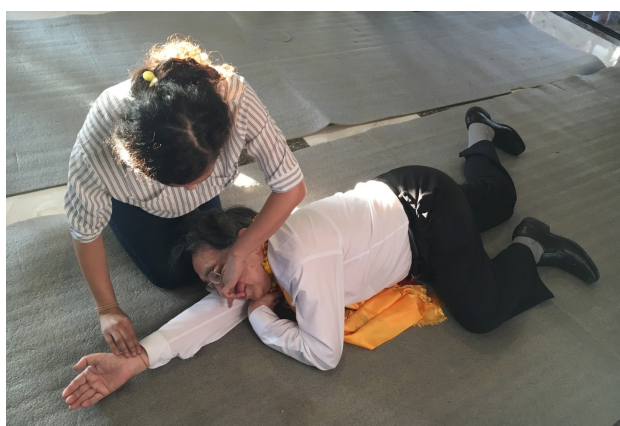
Nepal is situated in west part of Asia, however, as RCA and JRC we should encourage Nepal to join RCA. Prof. Maharjan would sincerely like to become a member of RCA, which contributes the advance of CPR in Nepal. Saving lives should be expanded in all RCA territory.



Picture 2 Training at NADEM



Picture 4 NADEM Token of Appreciation 2017 Presented



Picture 3 Training at NADEM



Picture 5 Cremation ceremony at Katmandu

## Editorial Note

It was a great pleasure for those of us with the Japan Resuscitation Council (JRC) to have launched the JRC Newsletter: English Edition last year at the 15<sup>th</sup> anniversary of our founding. The first issue was welcomed by many colleagues in the world. Here, the second issue of this newsletter is briefly introduced.

First, Professor Mayuki Aibiki briefly summarized the Advanced Life Support (ALS) chapter of the *JRC Resuscitation Guidelines 2015*; other chapters will be summarized briefly in subsequent issues. Next, we published the abstracts from the extremely popular symposium “Maternal Resuscitation” from the tenth J-ReSS (Japan-Resuscitation Science Symposium) held at Yokohama last July. Third, Professor Kazuo Okada, the founding Chair and now the Emeritus Chair of the JRC, contributed an article, an observational report on the Kingdom of Nepal, where he was invited last Autumn to discuss education regarding resuscitation in this great Asian country.

JRC is an interdisciplinary academic society of high public interest dedicated to the improvement of clinical and scientific affairs on cardiopulmonary and cerebral resuscitation. Together with the International Liaison Committee on Resuscitation (ILCOR) and the Resuscitation Council of Asia (RCA) and others, JRC is creating *JRC Resuscitation Guidelines 2020*. In the next issue, we will introduce a brief sketch of progress.

We ask your feedback on the JRC Newsletter: English Edition, as we intend for it to be a valuable resource for the global and domestic progress of resuscitation and resuscitation science.

**Masao Nagayama, MD, PhD, FAAN, FJSIM**  
**Secretary-General, Japan Resuscitation Council (JRC)**  
**Professor, Department of Neurology,**  
**International University of Health and Welfare School of Medicine**

## Members of the Japan Resuscitation Council

### <Member Societies of the Board of Directors>

Japanese Association for Acute Medicine  
Japanese Circulation Society  
Japanese Society of Anesthesiologists  
Japanese Society of Intensive Care Medicine  
Japan Society of Perinatal and Neonatal Medicine

### <Member Societies and Organizations>

Japan First aid and Emergency care Foundation  
Japan Foundation for Emergency Medicine  
Japan Pediatric Society  
Japan Society of Neurological Emergencies and Critical Care  
Japanese Dental Society of Anesthesiology  
Japanese Paramedics Association  
Japanese Red Cross Society  
Japanese Society for Emergency Medicine  
Japanese Society of Emergency Pediatrics  
Japanese Society of Internal Medicine

### <Nonprofit Societies and Organizations>

Japan Society for Instruction Systems in Healthcare  
Japan Society for Prehospital Medicine  
Japan Society of Neurosurgical Emergency  
Japanese Association of Brain Hypothermia and Temperature Management  
Japanese Society of Pediatric Anesthesiology  
Japanese Society of Reanimatology  
Japan ACLS Association  
Osaka Life Support Association

## Supporting members of the Japan Resuscitation Council

### <Supporting Organization>

Japan Medical Association

### <Supporting Companies>

IMI. Co., Ltd  
Asahi Kasei ZOLL Medical Corporation  
Athena Kogyo Co., Ltd.  
Kawasumi Laboratories  
Daiken Medical Co., Ltd.  
Nihon Kohden Corporation  
Physio-Control Japan, Inc.  
Philips Electronics Japan, Ltd.  
Laerdal® and Resusci® are registered trademarks of Laerdal Medical Corporation.

---

### JRC NEWSLETTER Volume 2. No 1. (English ed.). 2018

<http://www.japanresuscitationcouncil.org/jrc-newsletter/>

Published on 21<sup>th</sup> February, 2018

**Publisher** Japan Resuscitation Council (JRC)

Former Sakakibara Heart Institute, Japan Research Promotion Society for Cardiovascular Diseases, 2-5-4, Yoyogi, 2-5-4, Shibuya-ku, Tokyo, 151-0053, Japan

**Editorial office** Academic Research Communications (ARC)

