

Developing Concept of Neuro-Resuscitation Simulation Training for the Era of Integrated Community Care in Japan

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Received 20 August, 2017, Accepted 2 October, 2017

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Key words: ISLS, PSLs, ACEC, PCEC, PNLS, Simulation, Integrated Community Care

Background and Aims

As in reported at Society in Europe for Simulation Applied to Medicine (SESAM) 2007 (Copenhagen)¹⁾, SESAM 2008 (Hartfield)²⁾, International Meeting on Simulation in Healthcare (IMSH) 2011 (New Orleans)³⁾ and IMSH(San Diego)⁴⁾, we developed a group category of neuro-resuscitation simulation trainings (NRST) such as Immediate Stroke Life Support (ISLS), Prehospital Stroke Life Support (PSLS), Prehospital Coma Evaluation Care (PCEC), Advanced Coma Evaluation Care (ACEC) and Primary Neurosurgical Life Support (PNLS). The group of NRSTs is strongly complements each other and with Japan Resuscitation Guidelines 2015, as in reported at SESAM 2016 (Lisbon)⁵⁾.

Recently, Japanese Government started new healthcare plan called as “Integrated Community Care” system. Purpose of the new healthcare plan is reduction of medical cost by induction of patients from hospital to community. Approximately 20% of hospitalized patient should be moved to community care system within 8 years. In Japan, community based care system is incomplete and development is expected. Therefore, we analyzed the NRST groups for developing a new modification of the NRST group for “Integrated Community Care” for patient safety.

Neuro-Resuscitation Simulation Training

The group category of neuro-resuscitation simulation trainings (NRST) is including

Immediate Stroke Life Support (ISLS), Prehospital Stroke Life Support (PSLS), Prehospital Coma Evaluation Care (PCEC), Advanced Coma Evaluation Care (ACEC) and Primary Neurosurgical Life Support (PNLS) (Fig.1). Each course has been designed and managed by different consortium of related medical societies such as Japanese Association for Acute Medicine, Japanese Society for Emergency Medicine, Japan Society of Neurological Emergencies & Critical Care, The Japan Society of Neurological Emergency and Japanese Association for Emergency Nursing.

The basic concept is NRST group is common and based on Japan Resuscitation Council (JRC) Guidelines 2015. Therefore, we are developing a new modification of the NRST group for “Integrated Community Care” for patient and community safety.

Japan Integrated Community Care System

Japanese Government started new healthcare plan called as “Integrated Community Care” system. This is system includes an ordinary hospital based medical system, care system with rehabilitation and healthcare.



Fig 1. Textbooks for Immediate Stroke Life Support (ISLS), Prehospital Stroke Life Support (PSLS), Prehospital Coma Evaluation Care (PCEC), Advanced Coma Evaluation Care (ACEC) and Primary Neurosurgical Life Support (PNLS)

Purpose of the new plan is reduction of medical cost by induction of patients from hospital to community. Approximately 20% of hospitalized patient should be moved to community care system within 8 years. In Japan, education on community based care system is incomplete and development is expected.

Materials and Method

We analyze the content of NRST group textbooks by education category of knowledge, skill training, behavior and team dynamics. Textbooks for Immediate Stroke Life Support (ISLS), Prehospital Stroke Life Support (PSLS), Prehospital Coma Evaluation Care (PCEC), Advanced Coma Evaluation Care (ACEC) and Primary Neurosurgical Life Support (PNLS) is shown in Fig.1

Result

Result of analysis is shown in Fig.2. Behavior is widely covered in ISLS (Immediate Stroke Life Support) textbook. On the other hand, major part of ACEC (Advanced Coma Evaluation and Care) textbook is only for Knowledge due to difficulty of differential diagnosis of coma patients in emergency room.

Discussion

We should arrange and create a new simulation training for the “Japan Integrated Community Care”. The target people is community health care staff and

volunteer. The level of knowledge should be Adjusted and the balance on each contents such as knowledge, skill training, behavior, and team dynamics might be a key factor of neuro-resuscitation simulation training for the new care system.

We plan discussions with related domestic medical meeting such as Special Workshop of the neuroresuscitation related life support 2019 in Akita⁶⁾, Annual Meeting of Japan Society of Neurological Emergency and Critical Care (10th June, 2017), Japan Coma Society (6-8th July, 2017), Japan Association of Neurosurgical Clinics (15-16th July, 2017) and so on. Furthermore, several investigation of NRST on nurses⁷⁾ and regional education^{8,9)}.

Conclusion

ISLS, a pioneer project of NRST, is designed for education in emergency Room Staff for stroke management¹⁰⁾. We should develop a modification for the era of “Integrated Community Care” system in Japan.

A part of this study is presented at the 20th annual meeting of Japanese Society for Emergency Medicine, 26-28 May, Tokyo, Japan, and the 23rd Annual Meeting of The Society in Europe for Simulation applied to Medicine. 14-16 June, Centre Universitaire des Saints-Peres, Paris, France, 2017,

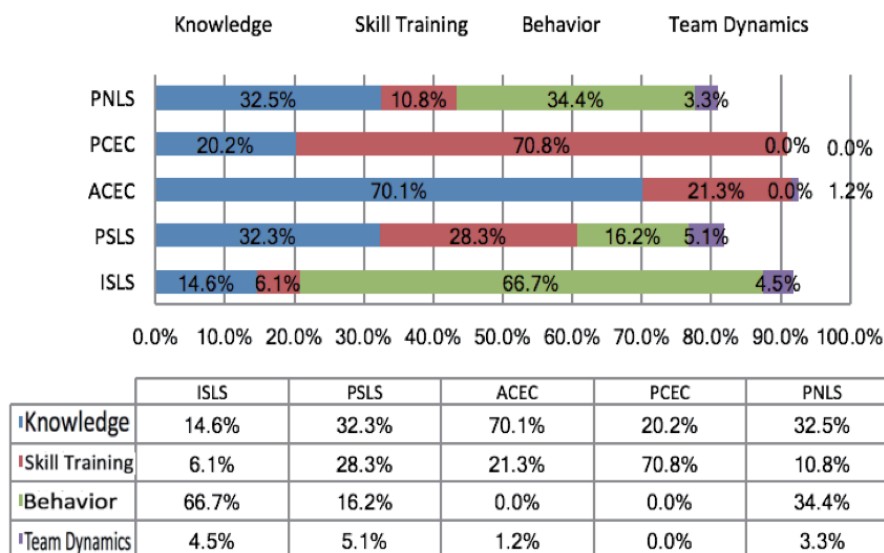


Fig 2.

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地域包括ケア時代における ISLS、PSLS、ACEC、PCEC、PNLS からなる神経蘇生研修群 NRST の検討

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神経蘇生の領域の標準化研修として、救急外来における脳卒中を対象とする ISLS、病院前での脳卒中を対象とする PSLS、救急外来での意識障害を対象とする ACEC、病院前での意識障害を対象とする PCEC、脳神経外科領域を対象とする PNLS、がそれぞれ異なる学会の組み合わせにより提案され、各地で開催されている。これは神経蘇生の取り扱う範囲が広く多様であることによる。一方で地域包括ケアの導入により、神経蘇生の概念も地域ケアに展開する必要がある。このため、前述の、ISLS、PSLS、ACEC、PCEC、PNLS を一群の神経蘇生研修群 NRST として包括し、地域包括ケアを対象とする新たな神経蘇生標準化研修をデザインするために教材内容の構造解析を行い概念の集約化を行った。

キーワード：ISLS, PSLS, ACEC, PCEC, PNLS, NRST, 標準化研修, シミュレーション研究, 神経蘇生, 地域包括ケア,

Journal of regional emergency and disaster medicine research 2017; 16: 15 – 18