

JOINT EVENT

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### Logical design of the nursing observation for the quality improvement of the pediatric team medicine

**Background:** The team medicine with doctors and nurses is strongly demanded in pediatric healthcare. However, a treatment plan by medical doctor and the observation plan by nurse tend to be managed each side in Japan. It needs long time to agree what you observe for each patient. The existence of the realistic problem is suggested with the reason. Therefore we tried the visualization of the clinical process of the Kawasaki disease using PCAPS which was structured technique of the clinical knowledge. We use NursingNAVI and Nursing observation master in PCAPS.

**Method:** We used Kawasaki disease as material. Kawasaki disease is a probable disease to develop in an Asian infant hereditarily. It affects during newborn period and childhood. It is at increased risk for progressing to cardiac vascular disease. Therefore we need long-term observation after healing. In addition, early detection, early treatment, and prevention of aggravation are important. It is important that a nurse observes side effect, complications symptoms by a disease and symptoms by the therapeutic drug immunoglobulin (IVIG). Tsuru et al. developed PCAPS, NursingNAVI, nursing observation terms master (it became the MHLW standard in 2016) so far. Patient condition adaptive path system (PCAPS) is a technique to structure clinical knowledge. PCAPS is expressed as an overview of an entire clinical path. It places patient condition at the core, to which multiple target conditions are linked. PCAPS include NursingNAVI contents and nursing observation terms master. Using these, we visualized a clinical process of the Kawasaki disease and designed the observation required by each situation logically. The study steps seem to be as follows: pediatricians visualizes a clinical process based on the latest guidelines on Kawasaki disease using PCAPS; we inspect whether they can visualize a real case by the clinical process; pediatricians designs the nursing observation required in each unit of the clinical process using the structure of the NursingNAVI; we confirm whether a nurse can understand the need of the designed nursing observation and; we inspect the validity of the observation design by confirming the existence of the observation item from the record of a certain patient.

**Results:** The PCAPS clinical process chart of Kawasaki disease using the latest Kawasaki disease guidelines was completed. A symptom of the disease, the signal of complications, and the adverse event with the medication were set to each unit. The history of the past patient was all on the PCAPS clinical process chart Kawasaki disease. As a result of having compared the observation items in the real nurse's record with the observation items designed to each unit, omission of the real nursing observation was suggested.

**Discussion:** It was confirmed that a high quality nursing observation planning model was made by using PCAPS and a NursingNAVI. We were able to determine the nursing observation items which a doctor hoped for quickly using PCAPS, NursingNAVI and a nursing observation terms master. The quality improvement of the team medicine for the pediatric is expected using this approach.

### Biography

Satoko Tsuru has completed her PhD from Hiroshima University, School of Medicine. She is a Professor in Quality and Health Social System Engineering Laboratory, School of Engineering, The University of Tokyo. She has published more than 150 papers in academic journals and has been serving as some board member of academic association in nursing, medical and engineering in Japan.

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