Development of quality indicators for gastric cancer care

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Background: A concern is growing worldwide that an inappropriate variation exists in quality of cancer care. Although the concern in Japan led to the enactment of the Cancer Control Act, mandating the national government to promote high quality of cancer care, the tools to measure cancer care are lacking. We aimed to develop a set of quality measurement tools with indicators to assess the care for gastric cancer, which is the second largest cause of cancer death among men and women and men in Japan.

Methods: In the development of quality indicators, we use a conventional methodology of RAND/UCLA appropriateness method. First, based on clinical practice guidelines and the review of the literature, we developed a list of candidates of process quality indicators. Each quality indicators describes the standards of care the adherence to which would indicate high quality care with few exceptions. Second, the candidate quality indicators were reviewed by a panel of clinical experts that consisted of four surgeons, three medical oncologists, and two endoscopists. Each panelist rated the quality indicators for the validity twice between which a face-to-face discussion meeting took place. Finally, to test the feasibility, the quality indicators accepted by the panel were implemented on patients who received care in a specialized cancer facility through a medical record review.

Results: In total, 30 indicators were rated as valid by the expert panel. These quality indicators covered a continuum of care from diagnosis and initial evaluation (8 QIs), treatment choice (4 QIs), surgery/peri-operative management (7 QI), endoscopic resection (3 QI), chemotherapy (6 QI) and follow-up (2 QI). The quality indicators were applied to care for 785 patients who were diagnosed with gastric cancer in a collaborating facility. The mean age was 64 and 70% were female. Overall, ** of indicated care processes were provided. The scores on each quality indicator ranged widely from 5% to 100%. The QIs with the lowest scores were: "Documenting the explanation of expected benefits to patient who receives surgery" (5%), "Documenting the explanation of risks of surgery including types of complication, its expected incidence rate, and surgical mortality" (8%), and "Appropriate explanation to patients who receives endoscopic resection to a lesion for which surgical resection is recommended" (8%), while 7 quality indicators had a 100% adherence.

Conclusion: Quality indicators were developed for the care of gastric cancer patients. Theoretically, measurement and feedback of quality to the healthcare providers motivate them to improve the quality of care they provide. Future research should address the methods of improving quality using these quality indicators.