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BACKGROUND

Research on the quality of cancer care (QoCC) throughout the last decade clearly demonstrated that increases in the knowledge of treatments with proven efficacy do not directly translate into the optimal delivery of such treatments to patients. Moreover, accumulating evidence suggests that *underuse* and *overuse* of care may occur for patients with cancer. Despite the yearly renewed international guidelines for each type of cancer are more followed, there is still a need to evaluate the real conditions of care in the community outside of the “artificial” conditions of randomized clinical trials (RCTs). QoCC studies on specific indicators to measure the quality of care have been developed in US and Europe but not in Switzerland, particularly at the population-based level and with a prospective design.

AIMS

The aims of the study are the following: 1) to measure and report on QoCC, by specific quality indicators defined on the basis of update literature, about three tumour localisations: colon-rectum, prostate and ovary/uterus; 2) to define and implement standards of care, based on the evidence-based medicine of diagnostic and treatment modalities, for each QoCC measure, in terms of minimum requirements and targets; 3) to promote a culture of QoCC and self-evaluation among health care providers; 4) to obtain in the short-medium term improved patient outcomes.

PATIENTS AND METHODS

A prospective descriptive population-based study on the QoCC will be conducted during a 3-year time period. Quality indicators are defined with the collaboration of an external Advisory Board and three cancer-specific Working Groups (WGs) of local health care providers (colorectal WG, prostate WG and ovarian/uterine WG) representing all major disciplines (epidemiology, statistic and clinical experts in pathology, radiology, surgery, radio-oncology, oncology); in addition, for the specific cancer sites urologists and gynaecologists as well as representatives of visceral surgery should be represented. The process used to select quality indicators is represented in Figure 1. The WGs and the health care providers will receive anonymous yearly feed-back on their quality of care to favour their auto-evaluation. The QoCC indicators and standards of health care will be collected for all incident cases (i.e. prostate, colorectal and ovary/uterus cancers) occurring between 2011 and 2013 in Canton Ticino (population of 332'736, in 2008), and added in the files of the population-based Ticino Cancer Registry. According to the incidence rate and the relative time trends observed in Canton Ticino, we expect to collect information for 220, 240 and 70 patients per year with colorectal, prostate and ovarian/uterine cancers, respectively (for a total number of 1590 cases for the 3-year study period). For each cancer site we will produce 30-50 quality indicators based on updated scientific literature and divided into the following subjects: diagnostic procedure, pathology, surgery, oncology, radiotherapy and follow up.

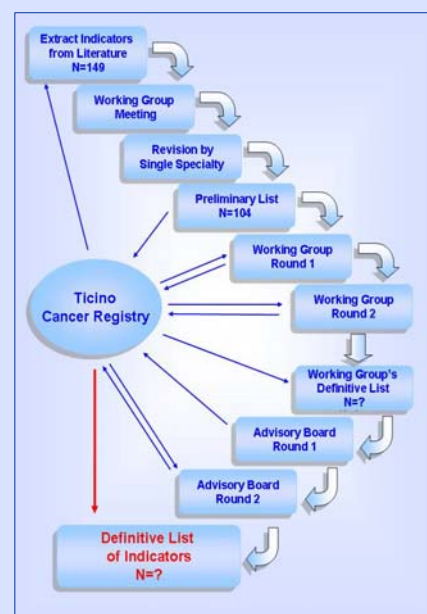


Figure 1. Selection of Quality Indicators Using a Modified Delphi Process

RESULTS

In Table 1 we reported an example of some selected indicators of diagnosis/pathology and surgery computed on the basis of available data already collected by the Ticino Cancer Registry for the colon-rectum neoplasia occurred in the period 2009-2010. Minimum and target requirements were defined according to up-to-date available literature and guidelines.

Table 1. Example of some selected indicators of colon-rectum neoplasia. Ticino, 2009-2010.

INDICATOR	COLON (n=303)	MINIMUM REQUIREMENT	TARGET REQUIREMENT	RECTUM (n=125)	MINIMUM REQUIREMENT	TARGET REQUIREMENT
DIAGNOSIS / PATHOLOGY						
Proportion of patients with microscopical confirmation of the tumour	96.7%	≥95%	95-100%	100%	≥95%	95-100%
Proportion of patients with defined tumour histotype according to WHO in the biopsy / surgical resection (all but NOS: 8000, 8010)	97.6%	≥95%	95-100%	100%	≥95%	95-100%
SURGERY						
Proportion of surgical patients (within 6 months since diagnosis)	87.5%	**	**	67.2%	**	**
Proportion of patients with defined tumour site in the biopsy / surgical resection according to WHO (all but NOS)	99.3%	≥95%	95-100%	89.6% [^]	≥95%	95-100%
Proportion of surgical patients with known resection margins	96.2%	≥95%	95-100%	95.2%	≥95%	95-100%
Proportion of surgical patients with lymphadenectomy	99.3%	**	**	96.4%	**	**
Proportion of surgical patients not undergoing neo-adjuvant therapy with more than 12 lymph nodes examined	84.4%	≥80%	90-100%	84.1%	≥80%	90-100%
Number of examined lymph nodes in surgical patients not undergoing neo-adjuvant therapy (mean±std, median)	18.8±8.3 17.5	≥12	≥12	16.6±7.2 15.5	≥12	≥12
Time (days) from biopsy to surgery in surgical patients not undergoing neo-adjuvant therapy (mean±std, median)	15.2±18.1 10.5	**	**	27.4±36.2 20.0	**	**

[^] WHO definition: distal, mid, proximal rectum
^{**} to be defined by the colorectal WG

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- ♦Colon-Rectum WG: Barizzi J, Franzetti A, Giovannella L, Heinkel J, Miazza B, Pelloni A, Quattropani C, Rosso R, Saletti P, Valli MC, Varini M, Wytenbach R.
- ♦Prostate WG: Ballerini G, Casanova G, Crippa S, Liadó A, Pesce G, Pedrazzini A, Roggero E, Stoffel F, Suriano S, Wytenbach R.
- ♦Ovary/uterus WG: Ballerini G, Bronz L, Calderoni A, Cannizzaro C, Gyr T, Manganiello M, Marini MC, Richetti A, Rusca T, Sessa C, Suriano S.

CONCLUSIONS

The strong points of the present study can be resumed as following:

1. The study will produce up-to-date quality indicators and results, allowing an immediate change in the diagnostic-treatment process, that could be translated in a short-term benefit for patients (without waiting years for results);
2. The study will help to define and implement standards of care, based on the evidence-based medicine of diagnostic and treatment modalities, for each QoCC measure, in terms of minimum requirements and targets at a regional level;
3. The study is based on expertise and active involvement of local health care providers representing all major disciplines (epidemiology, statistic and clinical experts in pathology, radiology, surgery, radio-oncology, oncology), thus increasing quality, acceptance and translation of results into the daily clinical practise;
4. The study is population-based and concerns both public and private settings, ensuring so a real description of a regional care system without selection bias and results will be useful and comparable as target value for other similar studies at the national and international level;
5. The study represents a long-term project, thus permitting trend evaluations and allowing possible future evaluation of other cancer sites.