showed amplification or deletions in many but not all lymph node samples. Surprisingly, one IMS EpCam positive sample that was negative for all other markers, and also by IHC, showed distinct amplifications and deletions proving the malignant nature of the cells. Together the results suggest the existence of heterogenic micrometastatic tumor cell populations with a complex gene and protein expression pattern, including differences between cells obtained from different. The data raises questions on the accuracy of the methods used for identification of micrometastatic tumour cells, and also suggest the presence of tumour cells in the two tissue types without the capacity to give rise to relapse.

Special Session (Wed, 23 Sep, 17:00−18:00)
Case-based: leadership and management

295 INVITED

Measuring quality at a local level

D. Doran[1]. [1]*Lawrence Bloomberg Faculty of Nursing -, Nursing, Toronto, Canada*

Background: At no time in the history of health care has the growth in knowledge and technologies been so profound. However despite rapid advances in science and technology, the health care system has struggled in its ability to provide consistently high-quality care to all who require health care services.

Purpose: This paper explores how we can utilize quality measurement at the local level to transform care at the bedside. It embraces the vision set out in the United Kingdom National Health System Next Stage Review report that quality improvement should be the organising principle of everything we do. The local level refers to the unit of care such as a hospital unit, team, patient care programme, or community centre.

Methodology: The paper draws on the health care quality literature and the results of three studies to discuss approaches to local quality measurement and strategies for the continuous improvement of patient care. The three studies utilized quasi-experimental research designs to evaluate the feasibility and impact of providing clinicians with access to real-time feedback about patient outcomes data along with access to research evidence to support the continuous improvement of patient care.

Results: High quality care is conceptualized as having three dimensions: (1) ensuring that care is safe, (2) effective, and (3) provides patients with the most positive experience possible. All staff must be active participants and leaders in transforming the quality of care. Providing clinicians with access to real-time feedback about quality indicators along with access to research evidence promotes reflective practice and encourages the uptake of evidence-based practice guidelines. However in order to promote effective utilization of local quality measurements it is important to create a favourable context for evidence-based practice.

Conclusion: It is recommended that we provide clinicians with access to quality measurement indicator data in real time along with access to information resources to support the continuous improvement of patient-centred care.

296 INVITED

Encouraging innovation in clinical practice

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This paper will present an overview of essential components of innovative health care. Consideration will be given to the characteristics of inspiring health care teams and to the features of novel systems of health care. The audience will be invited to think about how these characteristics and philosophies can be assimilated into clinical practice in order to optimise patient-reported outcomes. The benefits of innovative clinical practice as a means of practice advancement for the individual practitioner will also be explored. Two practice models currently in place at the Peter MacCallum Cancer Centre in Melbourne, Australia, will be presented as pragmatic examples of how innovations in practice can be achieved through utilising the skills and expertise of the multidisciplinary team.

Thursday 24 September 2009

Scientific Symposium (Thu, 24 Sep, 09:00−11:00)
Optimising therapy of young women with early breast cancer

297 INVITED

Epidemiology and prognosis of breast cancer in very young population

P. Tai[1]. [1]*University of Saskatchewan, Department of Oncology Allan Blair Cancer Center, Regina, Canada*

Background: Very young women aged less than 35 with breast cancer are regarded as high-risk patients in the literature. This study examines the relationship between age and mortality for breast cancer patients. This may have important prognostic and therapeutic implications.

Material and Methods: Data of 83,804 pT1−2M0 patients from 9 registries of the Surveillance, Epidemiology, and End Results Program (SEER) of the United States were used. This study employed proportional hazards to model mortality in women with T1−2 breast cancers. The martingale residuals of the model were used to examine the effect of age on mortality. This procedure was applied to node-negative (N0) and node-positive (N+) patients. All causes mortality and breast cancer specific mortality were evaluated. The analysis was applied first to node-negative cases (“training set”) in order to find an expression of the functional form which relates age to mortality. The functional form obtained from node-negative cases was then applied to node-positive cases (“validation set”). In addition to the validation with the same transformation which was obtained for node-negative patients, a further iterative search was performed in order to improve the fit for node-positive patients. We also studied the German Breast Cancer Study Group GBSG-2 dataset, a separate prospective database of 686 node-positive patients.

Results: The relationship between age and mortality is biphasic. This results in a U-shaped curve. For both N0 and N+ patients among the T1−2 group, the analysis suggested two age components. One component is linear and corresponds to a natural increase of mortality with each year of age. The other component is quasi-quadratic and is centered around age 50. This component contributes to an increased risk of mortality as age departs from 50. It suggests a hormonally related process: the farther from menopause in either direction, the more prognosis is adversely influenced by the quasi-quadratic component. Younger patients experience the same relative mortality risk from all causes as do older patients. A 30-year old patient has a risk of death almost equal to a 60-year old patient.

There is a complex relationship between hormone receptor status and other prognostic factors, like age. Very young patients tend to develop hormone receptor negative tumors. They have poorer survival explained in part by presentation with later stage disease and more aggressive tumors, in terms of grade and receptor status. They are more likely treated with conservative surgery than older patients.

The German Breast Cancer Study Group GBSG-2 dataset showed similar findings, confirming the poor prognosis of very young breast cancer patients.

Conclusions: The present analysis confirms the findings of many epidemiological and clinical trials that the relationship between age and mortality is biphasic. Compared with older patients, young women experience an abnormally high risk of death. These facts are important in the discussion of options for adjuvant treatment with breast cancer patients.

298 INVITED

Adjuvant therapy of very young women with early breast cancer

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Approximately 7% of women with breast cancer (BC) are diagnosed before the age of 40 years, and this disease accounts for more than 40% of all cancer in women in this age group.

Women under 35 or 40 with primary BC have historically been considered at poor prognosis, independently of other factors, but in some recent studies age is not independent in multivariate analyses, which include gene signatures.

Treatment choices on the contrary are dependent on BC biology (receptor status) as well as patient factors (ovarian function and desire for future fertility).

Trial results of adjuvant treatments for premenopausal women largely reflect outcomes for patients in their 40 s. Thus, findings from studies that consider these average results may not be directly applicable to younger patients.