SWISS BRIDGE

INVEST IN CANCER RESEARCH WORLDWIDE

SWISS BRIDGE Award for Cancer Research 2013
CHF 500'000
Summaries of the four supported research projects

Professor Christine Bouchardy, MD, Head of Geneva Cancer Registry, Institute for social and preventive medicine, Faculty of Medicine, University of Geneva, receives 150,000 Swiss francs for the project entitled:

Breast cancer quality of care and outcome according to surgeon's caseload

Breast cancer is an extremely important public health problem in Switzerland and research on quality of care for breast cancer patients is a priority. In Europe and other countries, in order to improve breast cancer care, an accreditation scheme for breast services has been recommended to provide the best practice standards and guidelines for breast cancer treatment. In Switzerland, a large number of practitioners in the public and private sector provide care for breast cancer patients. In some urban areas, more than 50 % of breast cancer cases are treated in the private sector, a proportion probably higher than in most European countries. We recently reported that the quality of care in the private sector is at least as good as what is observed at the Geneva University Hospitals. One of the most important criteria for accreditation of breast cancer units is to treat at least 150 new cases per year.

However, no study in Switzerland has assessed the effects of surgeon's caseload on both breast cancer quality of care and prognosis. This is the aim of our study.

We will include all patients with first primary invasive breast cancer who had surgery as first treatment in the private sector (n=1,489) recorded at the Geneva Cancer Registry during the 2000-2009 period. Information on surgeon's caseload is not recorded in the public sector. We will reopen medical files to identify the private surgeon in charge of the procedure. Additional variables will be collected through medical files and inquires to the physicians. We will define the surgeon caseload volume as the average annual number of new operated in situ or invasive breast cancer patients among the resident population within three years of activity. We will regroup surgeon's caseload into three groups: high-volume, medium-volume and low-volume. We will use 11 quality indicators set by the European Society of Mastology (EUSOMA). We will compare quality indicators of care between high- vs. low-volume surgeons by logistic regression and evaluate the effect of surgeon's caseload on breast cancer-specific mortality by Cox model adjusting for the probability of each patient being treated by one of the two groups (propensity score). We will also investigate if differences in quality of care may explain differences in breast cancer survival between surgeons groups.

Professor Lisa Licitra, MD, Chief of Head and Neck Cancer Medical Oncology Unit, Fondazione IRCCS Istituto Nazionale dei Tumori, Milano, receives 125,000 Swiss francs for the project entitled:

Health and economic outcomes of two different follow up strategies in effectively cured advanced head and neck cancer

Background
Follow up strategies in head and neck cancer patients have not been systematically investigated, differently from other cancer sites. Current published American guidelines (National Comprehensive Cancer Network, NCCN) suggest the use of frequent physical examinations and only one radiological assessment of head and neck district within 6 months since treatment end. There are suggestions coming from retrospective trials that a more intensive radiological assessment could find recurrences at an earlier stage, even if there are no data about clear benefit in outcome from this. A value based allocation of resources is becoming essential in times of health cost containment. In this context, there is a need to find which is the most cost-effective and appropriate follow up program in head and neck cancer patient survivors.

Trial proposal
Randomized, multicenter trial to evaluate the cost-effectiveness of 2 different follow up programs in head and neck cancer survivors:
- ARM A (non intensive): follow up according to NCCN (National Comprehensive Cancer Network) guidelines.
- ARM B (intensive): follow up visits will be performed similarly to ARM A, with locoregional imaging for all the patients 2 times per year in the first 2 years and 1 time per year in the third and fourth year; PET scan will be requested yearly in the first 3 years.

Primary objective
To evaluate the most cost-effective follow up strategy by comparing health consequences and costs of the two alternative follow-up strategies.

Secondary objectives
To evaluate the percentage of potentially salvageable recurrences or second primaries in both groups. To assess cause-specific survival (CSS) and overall survival (OS) of patients recurring in both groups.

Sample size calculation
Testing hypotheses about incremental cost-effectiveness ratios (ICER) and incremental cost-utility ratios (ICUR), a number of patient per arm equal to 165 are necessary (globally 330 patients), with statistical power 90 %, significance level 0.05, correlation between difference of costs and difference of effects 0.2, mean difference in effects 0.24±0.15 years, mean difference in cost 10,000±7,000 €.

Setting and timing of the trial
The project will be conducted in 11 centres (9 in Italy and 2 in Switzerland) with a great expertise in head and neck cancer patient treatment and with a high expected accrual rate. Accrual of the study will be completed within 1 year. All the patients will be followed up for 2 more years. Primary objective of the study will be assessed at the end of the third year.

Significance of the project for the healthcare system
Follow up procedures are typically absorbing many resources and are potentially negatively affecting timely primary cancer patient access thus impacting on patient outcome. Our trial proposal would like to assess for the first time in head and neck cancer setting the most cost-effective follow up strategy that could be then implemented in clinical practice.

Heide Götze, PhD, Department of Medical Psychology and Medical Sociology, University of Leipzig, receives 125,000 Swiss francs for the project entitled:

Long-term consequences of cancer and its treatment and satisfaction with health services – predictors of physical and mental health in long-term survivors

Given the fact that life expectancy has continually increased in European countries, surviving cancer leads to new challenges with regard to health care services, rehabilitation and growing supportive care needs, particularly for older individuals. This project represents an innovative attempt to address both cancer survivorship issues such as late and long-term symptom burden and its impact on health care services information and utilisation. We aim to identify predictors of physical and mental health (resilience factors) contributing to quality of life and life satisfaction in survivors. Thus, the main objective of this study is to analyse the frequency and impact of physical and mental long-term consequences of cancer on health care services utilization and services needs including treatment confidence, quality of life and satisfaction with care.

This proposal is for a three-phase study. It incorporates a prospective longitudinal study, which also includes a qualitative component, and finally has a cross-sectional element to compare long-term survivors. The prospective study with three measurement times (Baseline: at the end of primary active cancer treatment, T1: after 1 year, T2: after 2 years). Adult patients with solid cancers receiving curative therapy will be consecutively included after primary cancer treatment. Participants will be invited to complete a set of standardized validated questionnaires measuring the variables of interest. Access to patients will be facilitated through the University Cancer Center Leipzig (UCCL). In the longitudinal research approach semi-structured interviews will be conducted with a subgroup of participants in addition to the self-report questionnaires. Using those interview techniques, we aim to detect specific favourable and unfavourable profiles and factors to gather detailed and in-depth knowledge about late and long-term survivorship issues.

To complement the longitudinal study design, a sample of ~400 cancer patients who were treated in the Leipzig region and were diagnosed with cancer 10 years before, will be recruited using a cross-sectional design. Access to the patients will be facilitated through the Cancer Registry at the Cancer Center Leipzig. The data will be obtained using questionnaires sent by post.

The project addresses the existing issues and pursues an advanced research approach that over the usual medical treatment and follow-up periods also reflects the long-term path of a cancer patient from a life stage and development perspective. Specific psychological and social problem areas are presented as well as predictors of good mental health. Specifics of gender are considered. The results of the study should provide reliable information on the life situation of long-term survivors – imperative for the development and implementation of cancer survivorship programs.

PD Sibil Tschudin, MD, Department of Obstetrics and Gynecology, Basel University Hospital, receives 100,000 Swiss francs for the project entitled:

Decisional conflict of young cancer patients with regard to fertility preservation – effects of an online decision-aid tool

Background
Impaired fertility is often a consequence of successful cancer treatment and fertility preservation (FP) is nowadays an option for young cancer survivors. Decisions on FP,

however, have to be made in the short time period after cancer diagnosis and before onset of treatment. According to previous studies the availability of helpful information is still low, decisional conflict substantial and decisions-aids would be highly desirable.

Objectives

The indented project aims at introducing the knowledge gained by the previous research into the development of a standardized online decision aid (DA) that complements and supports shared decision-making in fertility issues and FP for young cancer patients and their medical caretakers and to evaluate the efficacy of this DA compared with usual care.

Primary objective

- To show that an online decision-aid tool in addition to standard counselling reduces decisional conflict compared to standard counselling alone.

Secondary objectives

- To assess whether the decision-aid tool decreases decisional regret significantly.
- To assess whether the use of the decision-aid tool increases the patients' knowledge on FP.
- To assess whether patients estimate the decision-aid tool helpful in facilitating the decision-making process.

Methods

- Design: Prospective, consecutive interventional study comparing a control group with standard counselling (first year) with an interventional group with counselling and application of the DA (second year).
- Sample: A total of 115 young cancer patients followed at one of the collaborating Swiss cancer centres aged 16 to 40 years who are possible candidates for FP.
- Intervention: Online DA, which will be developed based on the applicants' research findings and on a prospectively evaluated fertility-related Australian decision aid booklet.
- Measures: Decisional Conflict Scale (DCS); items on knowledge, attitude and willingness concerning FP; decision regret scale (DRS); items on satisfaction and helpfulness of the DA.
- Procedures: The control and the interventions group completes the questionnaires at three time points, i.e. immediately after the counselling (T1), after 1 month (T2) and after 12 months (T3).
- Analysis and statistics: The difference in decisional conflict between the two groups will be analysed by using a one-way analysis of variance (ANOVA) and a propensity score weighted ANOVA to adjust for confounding variables.