Einführung ins Thema

Versorgungsforschung in der Schweiz: Das Beispiel Onkologie

Tagung 1.Nov.2012, Bern
SAMW & SAKK

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LA Klinik für Onkologie, Universitätsspital Zürich
Präsident NOR der SAKK

Health Services Research in Oncology
HSR = Versorgungsforschung

SAKK
The Swiss Oncology Research Network

- Introduction, terminology
- SAKK, Schweiz. AG klin. Krebsforschung
- NOR, Network Outcomes Research
- Hot topic I: Quality of care
  - Early breast cancer care in Switzerland
- Hot topic II: Care at the end of life
  - Background
  - SAKK 89/09, End-of-Life Study (in cooperation with cancer registries and Helsana health insurance co.)
- Hot topic III: Drug reimbursement
  - NICE (U.K.)
  - SAKK: Literature based health economic analysis
- Take Home Messages

Health Research

1. Biomedical Research
2. Clinical Research
3. Health Services Research

«Health Services Research examines how people get access to health care, how much care costs and what happens to patients as a result of this care. The main goal of HSR is to identify the most effective way to organize, manage, finance, and deliver high-quality care, reduce medical errors and improve patient safety» [3].

AHRQ, Agency for Health Research and Quality (1989)
HHS (Human Health Service) department (USA)

http://www.ahrq.gov/qual/nurseshdbk/docs/steinwachsd_hsrss.pdf

Outcomes Research

The study of the end results of health care services that takes patients' experiences, preferences and values into account.

http://www.ahrq.gov/qual/nurseshdbk/docs/steinwachsd_hsrss.pdf

Goals of Health Service Research

1. Patient safety (errors)
2. Timeliness of care
3. Effectiveness (≠ efficacy in RCT)
4. Patient centered
5. Efficiency
6. Equity

Chapter 8. Health Services Research: Scope and Significance

Donald M. Steinwachs, Ronda G. Hughes

http://www.ahrq.gov/qual/nurseshdbk/docs/steinwachsd_hsrss.pdf

Schweiz.Arbeitsgemeinschaft für klinische Krebsforschung

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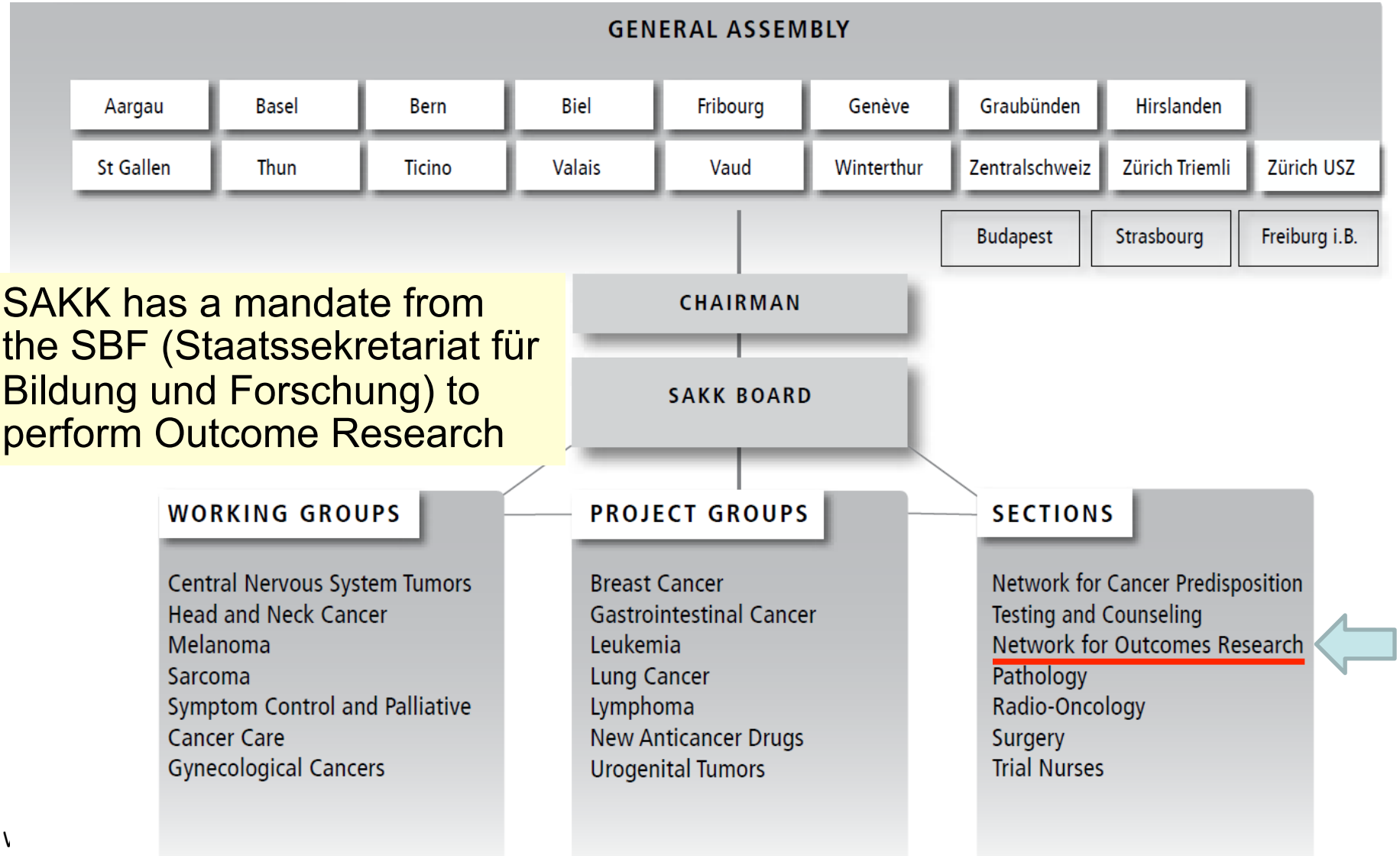

SAKK has a mandate from the SBF (Staatssekretariat für Bildung und Forschung) to perform Outcome Research

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original article

Annals of Oncology 22: 618–624, 2011
doi:10.1093/annonc/mdq404
Published online 12 August 2010

Predictors of state-of-the-art management of early breast cancer in Switzerland

S. Ess[1*], M. Joerger[1,2], H. Frick[3], N. Probst-Hensch[4,5], G. Vlastos[6], C. Rageth[7], U. Lütolf[8], A. Savidan[1] & B. Thürlimann[9]

[1]Cancer Registry St Gallen–Appenzell, Cancer League St. Gallen-Appenzell, St Gallen; [2]Oncology Department, Cantonal Hospital St Gallen, St Gallen; [3]Cancer Registry Grison–Glarus and Department of Pathology, Cantonal Hospital Graubünden, Chur; [4]Cancer Registry Zurich (former); [5]Swiss Tropical and Public Health Institute, University of Basel, Basel; [6]Senology Unit, Geneva University Hospitals, Geneva; [7]Brust-Zentrum Seefeld, Zurich; [8]Department of Radio-Oncology, Zurich University Hospital, Zurich; [9]Breast Center, Cantonal Hospital St Gallen, St Gallen, Switzerland

Received 2 April 2010; revised 11 June 2010; accepted 14 June 2010

Patients and methods: The study included 3499 women aged 25–79 years diagnosed with invasive breast cancer stages I–IIIA in 2003–2005. Patients were identified through population-based cancer registries and treated in all kinds of settings. Concordance with national and international recommendations was assessed for 10 items covering surgery, radiotherapy, systemic adjuvant therapy and histopathology reporting. We used multivariate logistic regression to identify independent predictors of high (10 points) and low (≤7 points) concordance.

Items used for the state-of-the-art breast cancer management score

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	N (%) 1pt	N (%) 0pt
Pretreatment diagnosis by FNA or CNB	2687 (76)	812 (24)
1mm tumor-free margin after final surgery	3199 (91)	300 (9)
Removal of 10+ LNs when undergoing AND	1657 (47)	649 (18)
SN as definitive procedure	1119 (34)	-
One breast surgery	2674 (76)	825 (24)
Reporting of HR-IHC in % cells, tumor size, grade	3426 (96)	73 (2)
Nonapplicable	51 (1)	-
Adjuvant radiotherapy following BCS	2348 (67)	151 (4)
Adjuvant radiotherapy following MX if requested	236 (7)	136 (4)
Endocrine therapy prescribed if requested	2720 (78)	170 (5)
Chemotherapy prescribed when requested	1455 (43)	324 (9)

Ess S. et al. 2011 Ann Oncol 22:618-624

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Trends in the aggressiveness of cancer care near the end of life

Earle CC 2004, J Clin Oncol 22:315-321

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Patients and Methods

We analyzed Medicare claims of 28,777 patients 65 years and older who died within 1 year of a diagnosis of lung, breast, colorectal, or other gastrointestinal cancer between 1993 and 1996 while living in one of 11 US regions monitored by the Surveillance, Epidemiology, and End Results Program.

Results

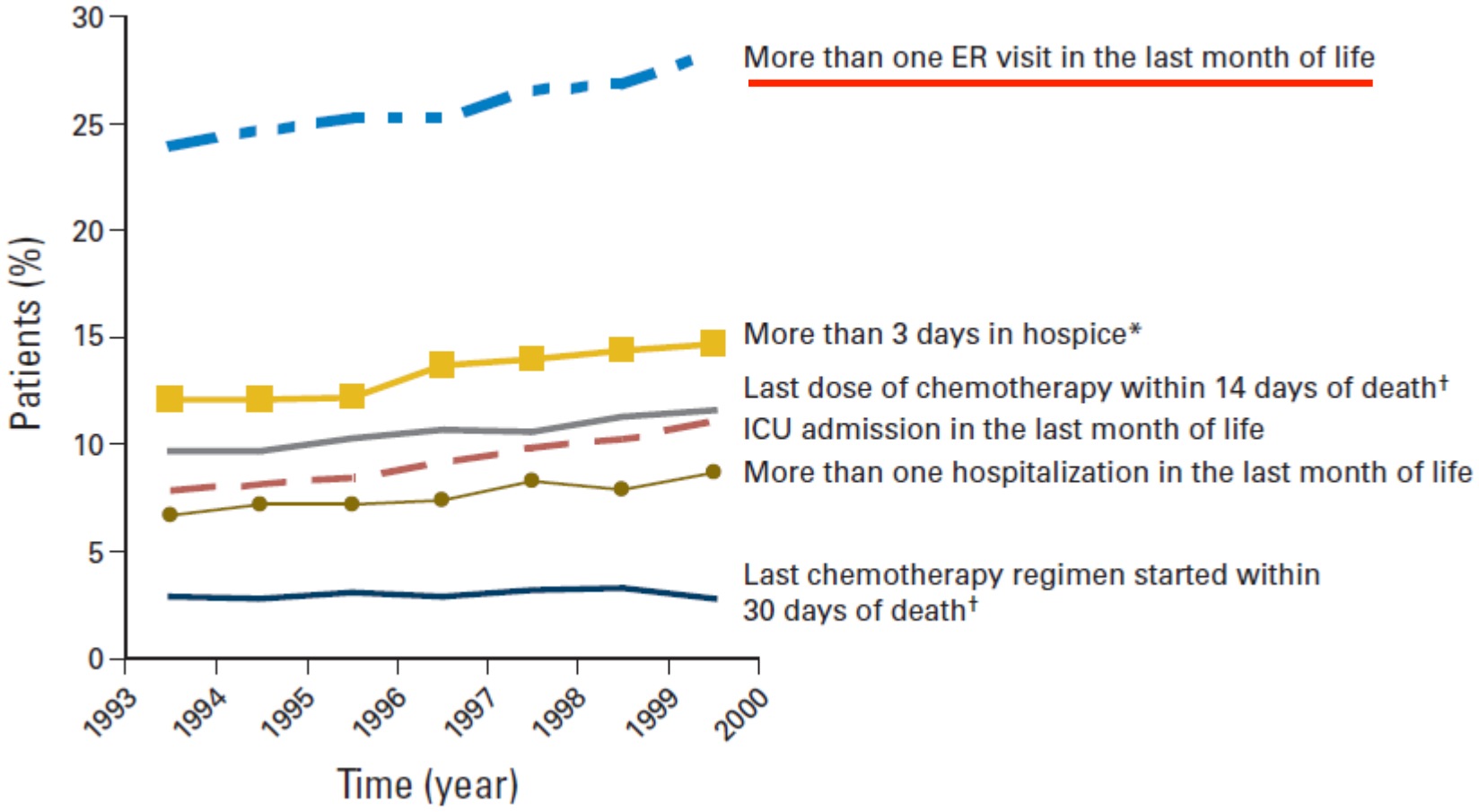
Rates of treatment with chemotherapy increased from 27.9% in 1993 to 29.5% in 1996 ($P = .02$). Among those who received chemotherapy, 15.7% were still receiving treatment within 2 weeks of death, increasing from 13.8% in 1993 to 18.5% in 1996 ($P < .001$). From 1993 to 1996, increasing proportions of patients had more than one emergency department visit (7.2% *v* 9.2%; $P < .001$), hospitalization (7.8% *v* 9.1%; $P = .008$), or were admitted to an intensive care unit (7.1% *v* 9.4%; $P =$

Table 4. Multivariate Analysis Predicting a Composite End Point of Patients Receiving Chemotherapy for Advanced Cancer Experiencing Any Indicator of Aggressive Care

Characteristic	OR	95% CI
Year of death*	1.06	1.02 to 1.10
Age†	0.98	0.97 to 0.99
Female	0.80	0.73 to 0.87
Comorbidity‡	1.14	1.06 to 1.23
Teaching hospital§	1.24	1.12 to 1.38

Aggressiveness of cancer care near the end of life: Is it a quality-of-care issue?

Earle CC 2008, J Clin Oncol 26:3860-3866, Review



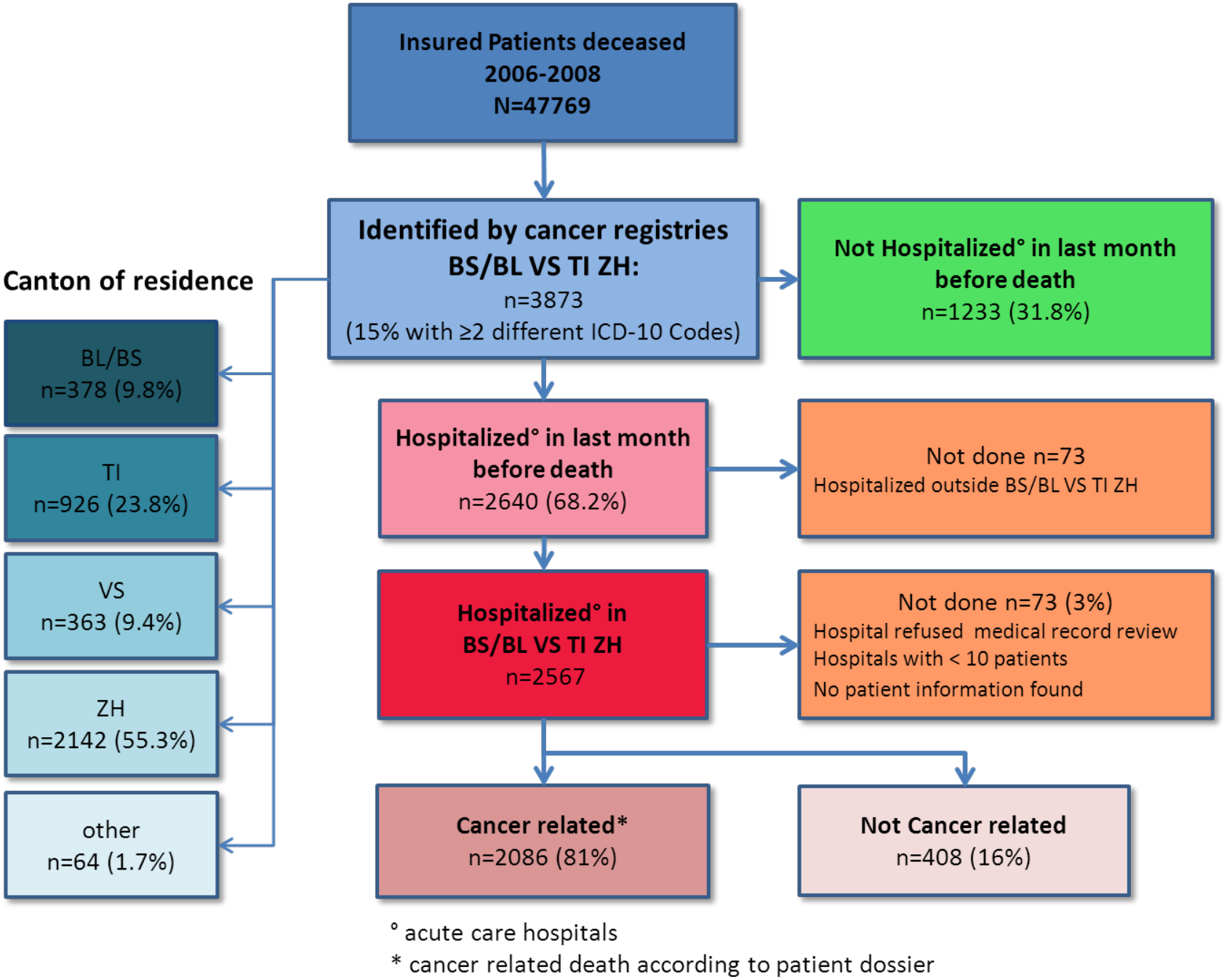
Protocol SAKK 89/09
Delivery of health care at the end of life in Swiss cancer patients

- Cooperation with Cancer Registries BS/BL, TI, VS, ZH
- Helsana health insurance company

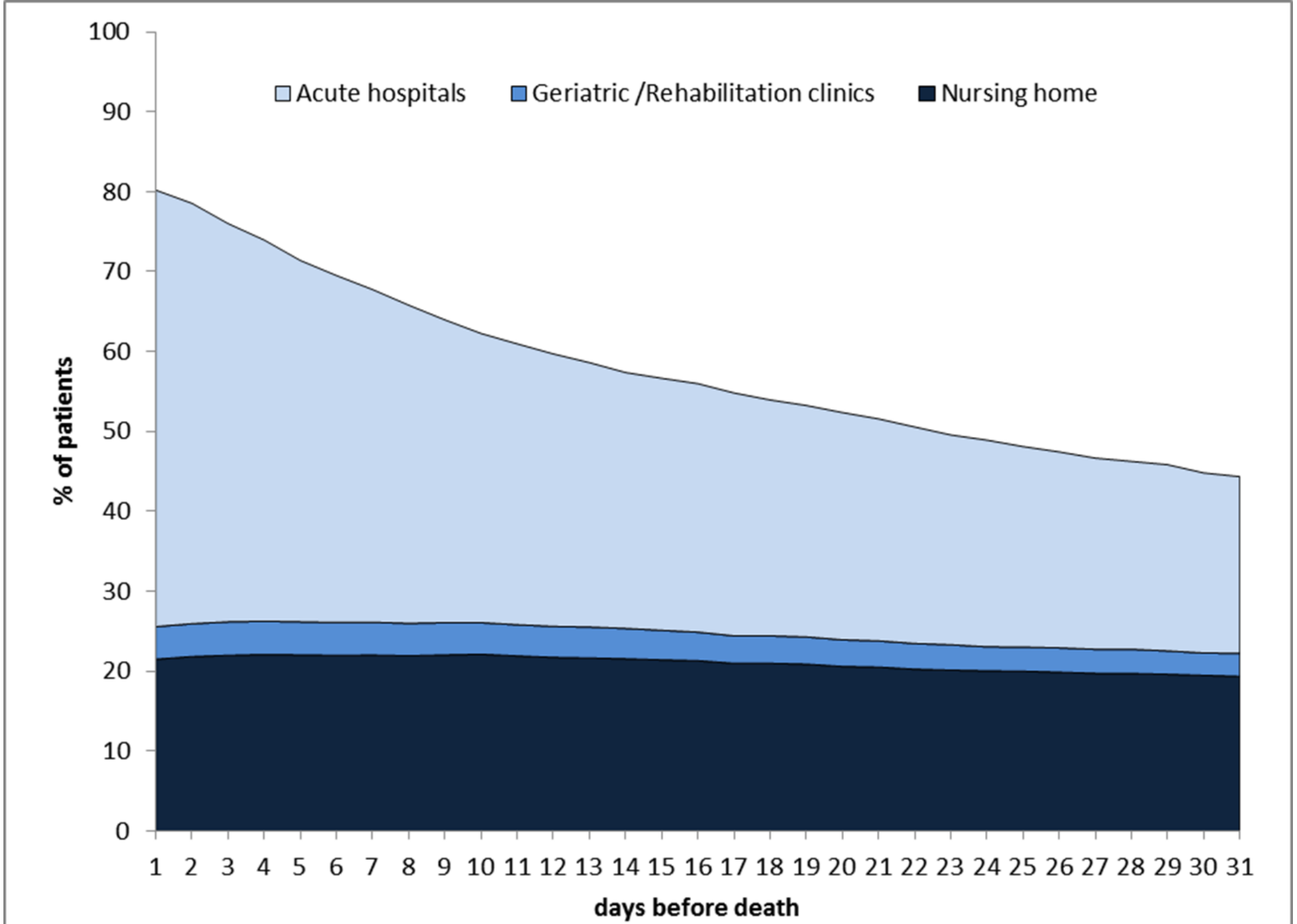
Health Services Research in Switzerland – the Example of Oncology

Klazien Matter-Walstra [1,2], Rita Achermann, Andrea Bordoni [3], Silvia Dehler [4], Gernot Jundt [5], Isabelle Konzelmann [6], Matthias Schwenkglenks [1], Bernhard C. Pestalozzi [7]
on behalf of the Swiss Group for Clinical Cancer Research (SAKK)

1) Institute of Pharmaceutical Medicine (ECPM), University Basel , 2) Swiss Group for Clinical Cancer Research (SAKK), Bern, 3) Cancer Registry Ticino, 4) Cancer Registry Zürich and Zug, University Hospital Zürich, 5) Cancer Registry Baselstadt and Baselland, University Hospital Basel, 6) Cancer Registry Valais, Sion, 7) President network outcomes research, SAKK / Department Oncology, University Hospital Zürich



Klazien Matter-Walstra et al. (Manuscript in preparation)



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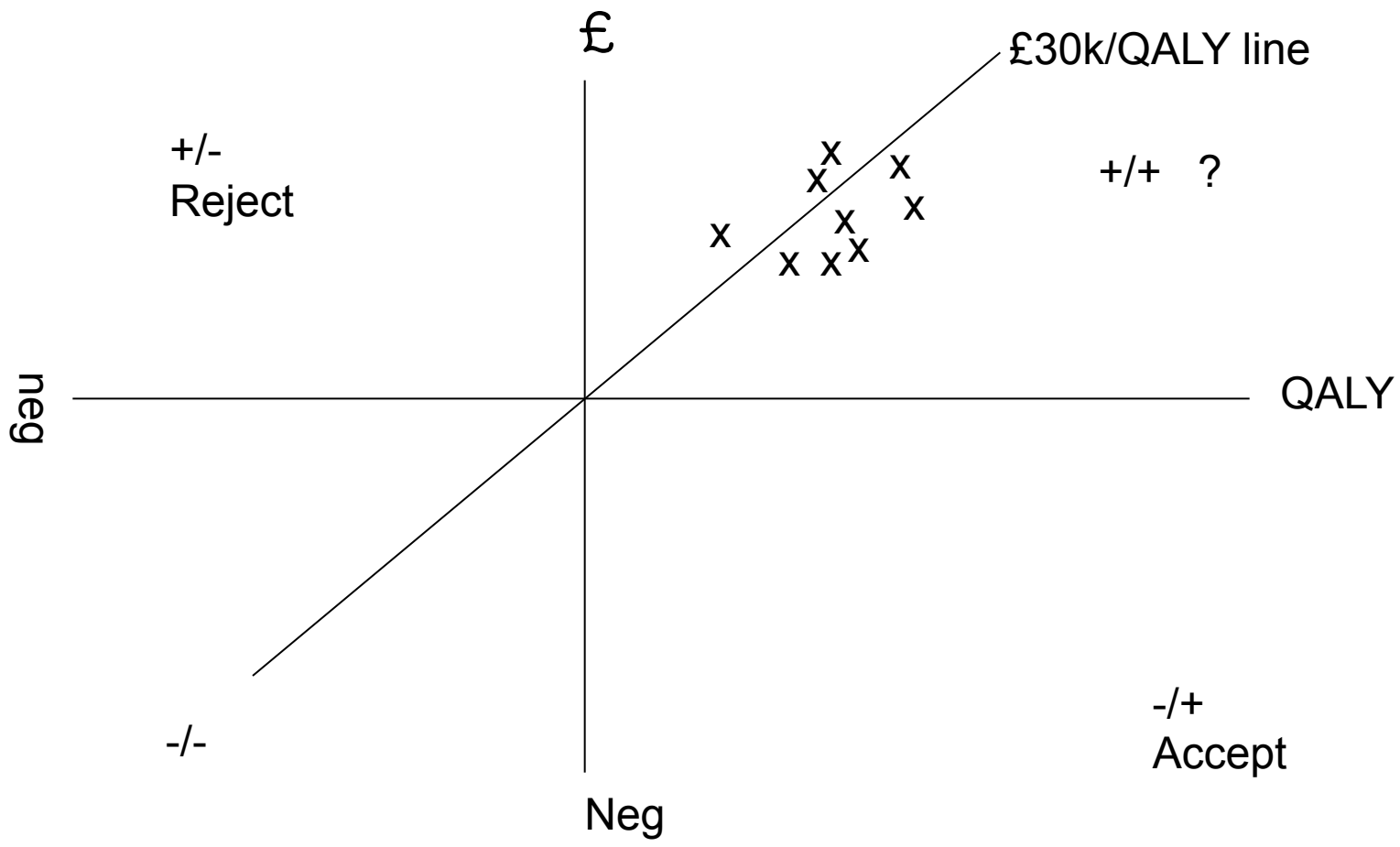
Drug reimbursement decisions U.K.

NICE = National Institute for Clincial Excellence
Also: «National Institute for Cost Effectiveness»
Peter Raftery, University of Southampton
SAKK HJV Basel 2008

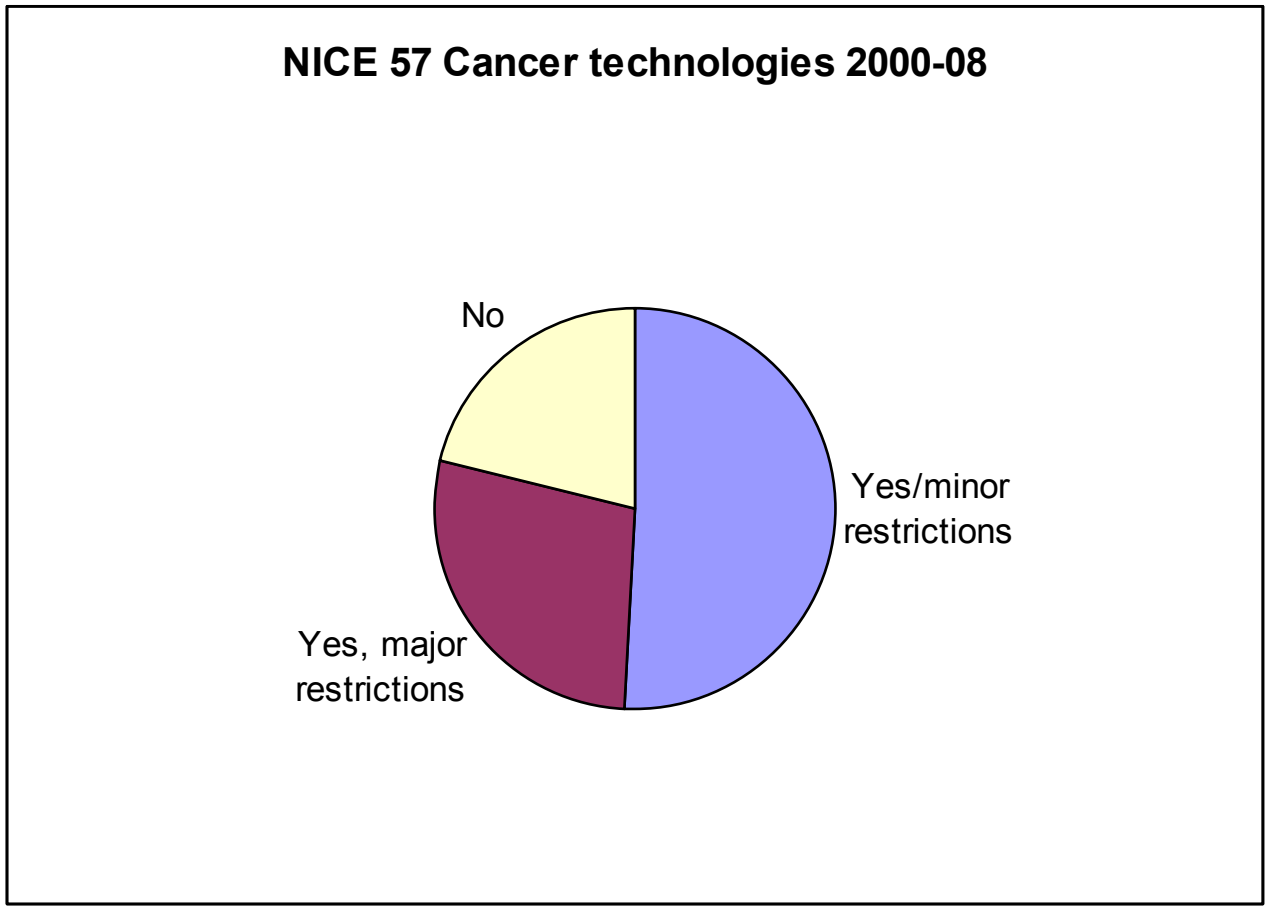
- Evidence-based decision making, transparent, open to appeal
- Independent academic groups assess clinical effectivenes (RCTs best), cost and cost-effectiveness (usually modelled)
- Cost per QALY «quality adjusted life years»
- Utility coefficients. Typical preference-based measure of health-related quality of life: EQ-5D (Mobility, self-care, usual activities, pain/discomfort, anxiety/depression)
- ICER (incremental cost effectiveness ratio)
- Threshold ICER: 'Above an ICER of £30k/QALY, the case for supporting the technology … has to be increasingly strong' (NICE, 2004).

Cost and QALY plane: uncertainty



Drug reimbursement U.K.

NICE = National Institute for Clincial Excellence



Bevacizumab in combination with paclitaxel for HER-2 negative metastatic breast cancer: An economic evaluation

Konstantin J. Dedes[a,], Klazien Matter-Walstra[b], Matthias Schwenkglenks[b], Bernhard C. Pestalozzi[c,d], Daniel Fink[a], Peter Brauchli[c], Thomas D. Szucs[b,e]*

A Markov cohort simulation was used to follow the clinical course of typical patients with MBC. Information on response rates and major adverse effects was derived, and transition probabilities were estimated, based on the results of the E2100 clinical trial. Direct costs were assessed from the perspective of the Swiss health system.

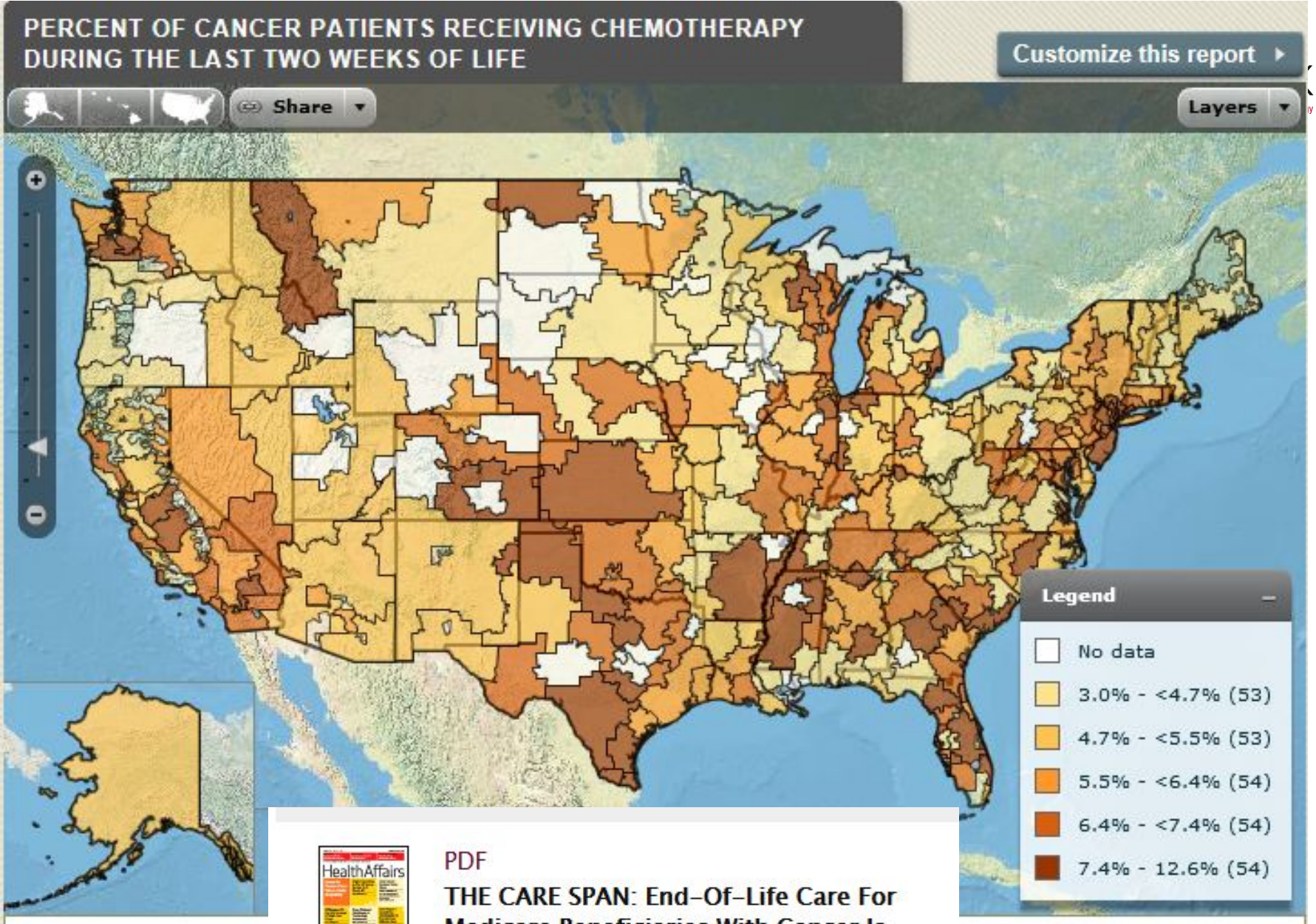
The addition of bevacizumab to weekly paclitaxel is estimated to cost an additional 40,369€ and to yield a gain of 0.22 quality-adjusted life years (QALYs), resulting in an incremental cost-effectiveness ratio of 189,427 €/QALY gained. Probabilistic sensitivity analysis showed that the willingness-to-pay threshold of 60,000€ was never reached.

EUROPEAN JOURNAL OF CANCER 45 (2009) 1397–1406

Take Home Messages HSR in Oncology

- Publications on quality of care
  - Compare real life oncology to standard-of-care guidelines
  - Awards, certifications, centers
  - Should they influence policy makers?
- Cancer care at the end-of-life
  - Analyse intensity of medical tests/treatments in last weeks of life
  - Our study cannot comment on the appropriateness of care, but cn be considered thaught-provoking / hypothesis generating
  - Demonstrate temporal and geographic variations
- Drug reimbursement
  - Markov models to estimate costs
  - ICER / QALY versus Willingness to pay (~60,000€ / QALY?)

Danke für Ihre Aufmerksamkeit!



PDF

THE CARE SPAN: End-Of-Life Care For Medicare Beneficiaries With Cancer Is Highly Intensive Overall And Varies Widely

Health Aff April 2012 31:4786-796;

READ MORE

Dartmouth Atlas 2007-2012

Case studies: rejections and £/QALY

- Colorectal cancer (metastatic): bevacizumab (£63k/QALY) and cetuximab (£70k/QALY) rejected (118)
- Breast cancer (metastatic): gemcitabine rejected as first line (£43/QALY) (116)
- Chronic lymph leukemia: fludaribine rejected £87K/QALY) (119)
- Multiple myeloma: bortezomib restricted (£38k unrestricted) (129)
- Lung cancer (NSC): pemetrexed rejected (£60k/QALY) (124)
- Early Breast cancer: trastuzumab accepted (£33k/QALY)(107)
- Implication: unwilling to accept if much over £35k/QALY, ceteris paribus.
- Highest was imatinib for accelerated chronic myeloid leukemia at £48k/QALY.