

Research at the Belgian Cancer Registry: from input to output

Burden of cancer: descriptive epidemiological parameters



Evaluation of Quality of Care in Oncology

Goals:

- Measuring process, structure and outcome indicators
- Stimulating multidisciplinary concertation and initiatives on quality aspects
- Evaluation of adherence to (inter)national guidelines

Content

 Analyses at the national level and at the hospital level (anonymous) Individual feedback sent to each hospital

Examples*

• Rectum, breast, testicular, oesophagus, stomach and lung cancer

Future*



Number of cases per centre

Figure: Example of a funnel plot of a quality indicator: proportion of patients

• Prostate, head and neck, ovary

diagnosed with breast cancer present with a cytological or histological determination of malignancy before first surgery , by centre (Belgium, 2009-2011)

"Fatal" population

"Cured" population



Molecular characteristics: Not routinely available Retrieved from Pathology protocols Allow to distinguish different cancer subtypes

Breast cancer subtype	Characteristics	%
Luminal A-like	ER+ or PR+/ grade 1 or 2/ HER2-	44.3%
Luminal B-like	ER+ or PR+/ grade 3/ HER2-	12.8%
Luminal HER2	ER+ or PR+/ HER2+	9.7%
HER2-like	ER-/ PR-/ HER2+	3.8%
Basal like	ER-/ PR-/ HER2-	8.2%
Unclassified	Too few information available	21.3%

Table: Distribution of breast cancer subtypes for Belgium, 2008, based on information derived from pathology protocols

Pharmacoepidemiology



WSR (n/100 000

• New research field for BCR since 2013 Investigating the impact of exposure to non-oncological medications on cancer development and/or cancer progression

1. Comparison of

Optimal utilisation rate (OUR) for radiotherapy

Combining BCR registration data • Other available data sources

(non)-exposure time patient with cancer survival observed relative cause-specific

Survival studies

- Cohort of patients with a specific cancer studied over time
- Measure the impact of exposure to non-oncological drugs on survival



Risk studies

- Cases with cancer matched to controls without cancer
- Exposure prior to cancer diagnosis

- With information from the multidisciplinary oncological consultation and
- The medical claims data from the health insurance companies

	RT OUR (%) (2010-2011)	RT MOC (%) (2009-2010)	RT IMA (%) (2009-2010)
Breast	86.2	73.8	75.9
Lung	76.9	35.8	45.1
Rectum	63.0	54.3	56.1
Prostate	58.5	33.2	35.1
Head and neck	82.8	70.0	70.8

2. Volume

Assign patients to hospitals to define hospital volumes (e.g. for rare cancers)





Thyroid cancer incidence in Belgium, females, 2004-2006: Higher incidence in the south of Belgium coincides with higher biopsy and imaging rates and increased postsurgical detection.



Purpose

 Assess and improve completeness and quality of registration

Example → Mesothelioma



Actions

 Proportion of death certificate only-cases is defined and a trace-back exercise is established

Future research plans

New Data sources:

New Methods:

- Add information from the hospital discharge data \rightarrow Research on comorbidities
- Data on socio-economic status (SES) \rightarrow Relation between SES and cancer incidence and survival
- New methodologies for calculating cancer net survival (Pohar-Perme)
- The impact of multiple tumours on survival estimates
- Evaluating the utility of text recognition tools to extract information from pathology protocols

Partners

- All research performed at the BCR results either from internal initiatives or from collaborations with (inter)national/scientific organisations such as....
- Patient advocacy organisations e.g. Kom op tegen Kanker, Stichting tegen Kanker/Fondation contre le Cancer
- Regional or federal governmental institutions e.g. KCE*, WIV/ISP, VIP^{2*}, College for Oncology
- Medical assocations, e.g. College for Radiotherapy, Belgische Vereniging voor Urologie,...
- Universities, Hospitals/Hospital associations, medical experts
- International collaborations, e.g. IACR, JRC-ENCR, RARECAREnet, EUROCARE, EURECCA
- •

Contact	Financial support								
Belgian Cancer Registry - Koningsstraat / Rue Royale 215 - 1210 Brussels www.kankerregister.org - www.registreducancer.org info@kankerregister.org - info@registreducancer.org	INAMI-RIZIV	service public fédéral SANTE PUBLIQUE, SECURITE DE LA CHAINE ALIMENTAIRE ET ENVIRONNEMENT	Wallonie	COMMISSION COMMUNAUTAIRE FRANÇAISE	DDCC DEUTSCHSPRACHIGE GEMEINSCHAFT	be.brussels 炎	Stichting tegen Kanker Stichting van openbaar nut Fondation contre le Cancer Fondation d'utilité publique	Met steun van de Vlaamse Regering	Kom op Kom op Kom op Kom op Kom op Kom op Kanker