

Geriatric oncology in Belgium

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As in other developed countries, the management of older cancer patients has become a major public health concern in Belgium owing to an increasing incidence and to other challenging specificities of this population. Since 2009, the Cancer Plan has played a leading role in the development of geriatric oncology in our country by supporting numerous pilot projects. By the year 2015, a scientific analysis of each of these projects will provide important information to the public authorities and care givers in order to organise the management of older cancer patients in an optimal way in Belgium. In this article, we describe the present landscape of geriatric oncology in Belgium focusing on epidemiological data and pilot projects supported by the Cancer Plan 2009-2011 and 2012-2015.

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Introduction

The management of older cancer patients has become a major public health concern in Belgium as in other developed countries. Because of the aging of the population and the increase in cancer incidence with advancing age, the incidence of cancer in older patients is high and steadily increasing.¹

Additional challenges have to be addressed. The specific (cancer related) mortality is particularly high in the older cancer population, especially during the first year after diagnosis. Suboptimal management of older cancer patients has been reported in several studies, including lack of screening, delayed diagnosis (at a more advanced stage of cancer evolution), incomplete investigations, inadequate level of treatment or incomplete treatment (no adjuvant therapy, non-curative surgery, etc.). The population of older cancer patients is highly heterogeneous owing to the diversity of comorbidities, functional status, social situations, psychological conditions and quality of life expectations from one individual to another. Finally, older patients are under-represented in cancer clinical trials making the development of management recommendations more difficult.¹

Therefore the mobilisation of public health authorities

and healthcare professionals is necessary. The organisation of a global and multidisciplinary management of older cancer patients, based on a close collaboration between oncologists and geriatricians, is essential. The design of clinical trials dedicated to these patients is also mandatory in order to collect specific and validated data. On March 10, 2008, the first Cancer Plan was presented by the Minister of Federal Public Service of Health, Food Chain Safety and Environment, Mrs Laurette Onkelinx.² A multi-annual budget has been approved by the government with the aim of supporting pilot projects in the field of cancer care. Among the numerous actions of the Cancer Plan, action 24 is dedicated to the support of pilot projects in the field of clinical geriatric oncology. Thus, since 2009, the Cancer Plan has played a leading role in the development of geriatric oncology in our country. The main objectives are:

1. To define tools for geriatric assessment in order to identify patients who will benefit most from oncological treatments and what types of treatment they will be able to tolerate.
2. To define the best type of multidisciplinary management of these patients according to their needs.
3. To develop specific recommendations for the care of

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Table 1. Absolute numbers (N) of new cancer diagnoses (non-melanoma skin cancers excluded) by age category in 2011 in Belgium, among individuals aged 70 years or older.³

	Males (N)	Females (N)	Total
70-74	5273	3280	8553
75-79	5274	3547	8821
80-84	3606	3076	6682
85+	2209	2629	4838
Total	16362	12532	28894

older cancer patients.

4. To create units specialising in clinical geriatric oncology in hospitals.

In this article, we describe the present landscape of geriatric oncology in Belgium focusing on epidemiological data and pilot projects supported by the Cancer Plan 2009-2011 and 2012-2015.

Belgian epidemiological data

Cancer incidence is increasing with age. In Belgium, in 2011, 64.301 new cases of cancer (non-melanoma skin cancers excluded) were diagnosed, 34.600 in males and 29.701 in females. The number of cases diagnosed among individuals aged 70 years or older was 28.894 (45% of the total incidence), 16.362 in males and 12.532 in females (Table 1). The most frequent cancers diagnosed in males aged 70 years or older were prostate cancer (4.437 cases), lung cancer (2.815 cases) and colorectal cancer (2.629 cases). In females aged 70 years or older, the most frequent cancers were breast cancer (3.273 cases), colorectal cancer (2.339 cases) and lung cancer (900 cases). Other cancers frequently diagnosed in the older population were bladder cancer, uterine and ovarian cancers, myeloma, gastric cancer and chronic lymphocytic leukemia.³

Persons aged 65 years or older currently account for around 18% of the Belgian population. According to the Federaal Planbureau / Bureau Fédéral du Plan, one person in five will have reached that age by the year 2020, and this figure will be more than one in four by the year 2060 (Table 2).⁴

As a result, a significant increase in the number of older cancer patients is expected in the coming years. In 2050, 50% of cancers will be diagnosed in individuals aged 75 years or older.

Pilot projects in the field of clinical geriatric oncology supported by the Cancer Plan 2009-2011

The first call for pilot projects in the field of geriatric oncology was launched by the Cancer Plan in June 2008 (action 24). In total, 27 projects were submitted and fifteen projects were selected across Belgium for funding by the Cancer Plan from January 2009 until December 2011 (Table 3).

The projects had different end points:

1. Most of the projects focused on the use of screening tools and/or (comprehensive) geriatric assessment ((C)GA) in daily clinical practice;
2. One project analysed the relation between sarcopenia in older cancer patients and functional outcome;
3. One project focused on advanced care planning in palliative older cancer patients;
4. One project analysed the experiences of older cancer patients and their families during cancer therapy;
5. One project examined the relation between screening and toxicity of chemotherapy in older cancer patients.

Data from some of these projects have been published in the literature and some messages are already available:

1. Geriatric screening and assessment in older cancer patients is feasible at large scale and has a significant impact on the detection of unknown geriatric problems, leading to geriatric interventions and adapted treatment.⁵
2. In a substudy, two screening tools, G8 and fTRST were shown to strongly predict functional decline and overall survival.⁶
3. High prevalence of geriatric syndromes and comorbidities is associated with positive screening tools

Table 2. Age structure of the Belgian population: expected evolution from 2013 until 2060.⁴

	2013	2060
Total population (x1000)	11099.6	12522.9
0-14 (%)	17	16.4
15-64 (%)	65.4	57.9
65+ (%)	17.7	25.8
85+ (%)	2.4	6.1
Mean age	41.1	44.5
(65+) / (15-64) (%)	27	44.5
(15-64) / (65+)	3.7	2.2

Identification of Senior At Risk (ISAR) and G8 scores but not with the tumour stage.⁷

- In patients aged 65 years or older with primary head and neck cancer, two proposed screening tools, the Vulnerable Elders Survey-13 (VES-13) and the G8 were evaluated to identify patients who could benefit from a comprehensive geriatric assessment (CGA). Both tools were found to have good diagnostic performance. However, at the proposed cut-off scores, the data suggest the G8 as the most optimal screening tool. Moreover, the combined tool could represent an interesting alternative.⁸

All these projects are currently under evaluation by the steering committee of the Cancer Plan and its scientific team established by the new Cancer Plan since July 2012. The objective is to learn how to improve the management of older cancer patients and to establish evidence based recommendations for concrete measures. The results of this evaluation will be published in detail by the Cancer Plan by the year 2015.

Pilot projects in the field of clinical geriatric oncology supported by the Cancer Plan 2012-2015

In January 2012, a new call for pilot projects in the field of geriatric oncology was launched by the Cancer Plan as a continuation of action 24. In total, 36 projects were submitted. Funding from July 2012 until June 2015 was proposed.

Thereby, two kinds of projects are currently supported by the Cancer Plan:

- Clinical projects focusing on the optimal management of older cancer patients through a close collaboration between the cancer care program and the geriatric care program (action 24 A: "Optimal management of the oncogeriatric patient").
- A scientific project focusing on the evaluation of the clinical projects since 2009 and on the elaboration of specific recommendations for the care of older cancer patients in Belgium (action 24 B: "Scientific analysis in geriatric oncology").

Within action 24 A of the Cancer Plan, seventeen clinical pilot projects were selected for funding (Table 4).

All of these clinical pilot projects include a geriatric screening for each cancer patient aged 70 years or older in order to detect geriatric problems and to propose, if necessary, a more complete geriatric assessment and interventions. Several screening tools are used depending on the project: G8, VES-13, ISAR, SEGA, etc.

Some of these projects are multicentric providing the opportunity to test the implementation of the project in hospitals of different sizes. Several projects also focus on the follow-up of the geriatric interventions and on the follow-up of the patient's condition after the implementation of the interventions.

Within action 24 B of the Cancer Plan, a scientific team was set up and received three main missions:

Table 3. Pilot projects in the field of geriatric oncology selected for funding by the Cancer Plan 2009-2011 (action 24).

	Project number	Project title	Coordinator	Population
1	NCP_24_001	Treatments in clinical geriatrics oncology: impact of the hospitalisation on functional autonomy, quality of life and life prognosis. Interuniversity and interdisciplinary test project.	Yves Libert (Institut Jules Bordet, Brussels)	Hematologic patients aged 65+ Multicentric
2	NCP_24_004	Evaluation of geriatric scales in elderly cancer patients treated with anticancer drugs and their evolution during and after these treatments. A prospective observational multicentric study.	Thierry Klein (Centre Hospitalier Hornu Frameries)	Breast, lung, colon cancer patients aged 70+. Multicentric
3	NCP_24_005	Utility of a systematic geriatric screening of older cancer patients in Belgium.	Hans Wildiers (UZ Leuven)	Cancer patients aged 70+ Multicentric
4	NCP_24_008	Impact of comprehensive geriatric assessment during oncologic treatment in frail elderly patients.	Didier Schoevaerts (Cliniques Universitaires de Mont-Godinne)	Solid tumours patients aged 70+ Multicentric
5	NCP_24_010	The experiences of the older non-institutionalised cancer patient (70+) and his carers during a treatment with chemotherapy and/or radiotherapy and the need for support focusing on the (after-) care period.	Nele Van Den Noortgate (UZ Gent)	Breast, lung, colon cancer patients aged 70+ treated by chemotherapy or radiotherapy. Monocentric
6	NCP_24_011	Advance Care Planning in the palliative oncogeriatric patient. Exploration of attitudes and wishes concerning EOL care.	Nele Van Den Noortgate (UZ Gent)	Metastatic solid tumours patients aged 70+ Monocentric
7	NCP_24_013	Oncogeriatrics: a trans-hospital pilot project of CHC Liège-Belgium (with complementary translational research).	Christian Focan (CHC Liège)	Cancer patients aged 70+ Multicentric
8	NCP_24_014	Influence of muscle weakness and atrophy in old cancer patients in terms of functional outcomes.	Sandra De Breucker (ULB Hôpital Erasme, Brussels)	Cancer patients aged 70+ Multicentric
9	NCP_24_015	Pilot project for the development of a mobile oncogeriatric team.	Sylvie Luce (ULB Hôpital Erasme, Brussels)	Cancer patients aged 70+ Monocentric
10	NCP_24_016	Pilot project for a senior patient oncology program at the CHR de la Citadelle.	Marie Claire Van Nes (CHR de la Citadelle, Liège)	Cancer patients aged 65+ Monocentric
11	NCP_24_018	A pilot study of the vulnerable elders survey-13 (VES-13) compared with the comprehensive geriatric assessment (CGA) for identifying disability in older patients with stage I to IV head and neck cancer without metastases who receive curative radiotherapy with or without systemic therapy.	Philip Debruyne (AZ Groeninge, Kortrijk)	Head and neck cancer patients aged 65+ treated by curative radiotherapy Multicentric
12	NCP_24_020	Project for the implementation of a clinical pathway based on a multidisciplinary approach of the oncogeriatric patient in the CHR St. Joseph-Hôpital de Warquignies medical centre.	Philippe Meurisse (Clinique St.-Joseph - Hôpital de Warquignies)	Cancer patients aged 60+ Multicentric
13	NCP_24_021	Impact of frailty in senior cancer patients: feasibility and value of screening tool and geriatric intervention and predictive value of a screening tool in relation to treatment outcome.	Dirk Schrijvers (ZNA Middelheim)	Cancer patients aged 65+ treated by chemotherapy Multicentric
14	NCP_24_022	Importance of geriatric evaluation in the management of newly diagnosed symptomatic prostate cancer in the elderly.	André Efra (CHU Brugmann, Brussels)	Prostate cancer patients aged 70+ Monocentric
15	NCP_24_024	The screening for toxicity in elderly patients treated with chemotherapy: a mutual action between the hospital physicians and general practitioners.	Randal D'Hondt (AZ Damiaan, Oostende)	Cancer patients aged 65+ treated by chemotherapy Monocentric

Table 4. Pilot projects in the field of geriatric oncology selected for funding by the Cancer Plan 2012-2015 (action 24 A).

	Project number	Project title	Coordinator	Population
1	KPC_24_A_001	Pilot project for the development of a mobile team of geriatric oncology.	Sylvie Luce (ULB Hôpital Erasme, Brussels)	Monocentric
2	KPC_24_A_006	Implementation of a model of care for elderly patients with oncologic and hematologic disorders in the acute care setting.	Nele Van Den Noortgate (UZ Gent)	Monocentric
3	KPC_24_A_010	Geriatric liaison for the cancer care floor.	Johan Devoghel (AZ St.-Jan, Brugge-Oostende)	Monocentric
4	KPC_24_A_012	A systematic comprehensive assessment and approach for older cancer patients by early detection and multiple caregivers.	Gert Noels (AZ St.-Maarten, Mechelen)	Monocentric
5	KPC_24_A_013	Collaboration geriatric oncology: implementation of an organisational model within the CHU Mont-Godinne and Dinant.	Marie de Saint-Hubert (CHU Mont-Godinne et Dinant)	Multicentric (2 centres)
6	KPC_24_A_017	Setting up a ladder of intervention for fragile oncogeriatric patients in Vivalia.	Michel Marion (Cliniques du Sud- Luxembourg, Arlon)	Multicentric (2 centres)
7	KPC_24_A_021	Geriatric oncology clinical program at CHU A. Vésale.	Pierre Lemaire (CHU Charleroi)	Monocentric
8	KPC_24_A_024	Optimal approach for the oncogeriatric patient.	Roland Pieters (AZ St.-Blasius, Dendermonde)	Monocentric
9	KPC_24_A_025	Implementation of a systematic geriatric screening/evaluation in older cancer patients with subsequent advice for intervention and follow-up: a multicentric study in Belgium.	Hans Wildiers (UZ Leuven)	Multicentric (22 centres)
10	KPC_24_A_028	Optimal approach for the oncogeriatric patient.	Patrick Godfroid (Mariaziekenhuis Noord- Limburg, Overpelt)	Monocentric
11	KPC_24_A_029	Creation and maintenance of a steering committee to ensure a geriatric oncology synergy to optimise the care of older cancer patients throughout the course of their disease.	Koen Swinnen (St.-Jan Kliniek - Clinique St.- Jean, Brussels)	Monocentric
12	KPC_24_A_034	Personalised support for the care of geriatric patients with malignant disease profile: improving the quality of life by adapting the proposed treatments based on an evaluation algorithm.	Hassan Rezaei Kalantari (CH Peltzer - La Tourelle, Verviers)	Monocentric
13	KPC_24_A_038	Establishment of an oncogeriatric liaison between the institution, the home and the attending physician.	Myriam Roos (Institut Jules Bordet, Brussels)	Monocentric
14	KPC_24_A_041	Supporting pilot projects in clinical geriatric oncology.	Philippe Meurisse (CHR Clinique St.- Joseph – Hôpital de Warquignies)	Monocentric
15	KPC_24_A_050	Geriatric oncology at CHR de la Citadelle.	Nicolas Berg (CHR de la Citadelle, Liège)	Monocentric
16	KPC_24_A_053	Plan of care, specifically multidisciplinary care in elderly cancer patients (including oncogeriatric consultation, geriatric interventions, their implementation and follow-up at home).	Frank Comélis (Cliniques Universitaires St.- Luc, Brussels)	Multicentric (3 centres)
17	KPC_24_A_056	"Senior Oncology" in Chirec Cancer Institute (CCI): a comprehensive and personalised care of the older person with cancer.	Fabienne Bastin (CH Interrégional Edith Cavell, Brussels)	Monocentric

Key messages for clinical practice

1. How to organise the collaboration between the cancer care program and the geriatric care program in a hospital? How to deal with the lack of specialists within these two medical disciplines?
2. How to implement geriatric assessment for older cancer patients in different settings?
3. How to select those patients that will benefit most from a multidisciplinary approach?
4. How to take into account the information provided by the geriatric assessment in the patient's care plan?
5. How to implement geriatric interventions? Are geriatric interventions actually implemented? If not, why and how to improve their implementation?
6. What is the impact of an oncogeriatric care plan on autonomy and quality of life of patients?
7. What is the cost to society of a specific management of older cancer patients?

1. Coaching and guidance of the clinical pilot projects 2012-2015.
2. A scientific evaluation of the results of the pilot projects 2009-2011 and 2012-2015.
3. A systematic review of available international literature on the management of older cancer patients.

The scientific team consists of:

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The coaching of the pilot projects 2012-2015 includes guidance committees organised twice a year, gathering the Cancer Plan team, the scientific team, the pilot projects coordinators and a representative of the Cancer Centre. It also includes direct contact between the scientific team and the pilot projects coordinators in order to exchange information and to solve problems. A three-monthly follow-up report and an annual activity report are requested from each pilot project.

The evaluation of the pilot projects 2009-2011 and 2012-2015 will be the subject of a scientific report including a review of the literature in collaboration with the International Society of Geriatric Oncology (SIOG), the analysis of the results of the pilot projects and recommendations for the care of older cancer patients in Belgium. Moreover, a scientific database is established from the experience of the 2012-2015 pilot projects, focusing on geriatric interventions. A symposium on geriatric oncology will be organised in September 2015.

Conclusion

With the support of the Cancer Plan, numerous pilot projects in the field of geriatric oncology are ongoing in Belgium since 2009. By the year 2015, the evaluation of each of these projects and the analysis of a joint scientific data base established from their experience will provide important information to the public authorities and the caregivers in order to organise the management of older

cancer patients in an optimal way in our country.

Some important questions are:

1. How to organise the collaboration between the cancer care program and the geriatric care program in a hospital? How to deal with the lack of specialists within these two medical disciplines?
2. How to implement geriatric assessment for older cancer patients in different settings?
3. How to select those patients that will benefit most from a multidisciplinary approach?
4. How to take into account the information provided by the geriatric assessment in the patient's care plan?
5. How to implement geriatric interventions? Are geriatric interventions actually implemented? If not, why and how to improve their implementation?
6. What is the impact of an oncogeriatric care plan on autonomy and quality of life of patients?
7. What is the cost to society of a specific management of older cancer patients?

Based on this information, a structural funding of geriatric oncology by the public authorities should be instituted in order to consolidate this new medical activity in the

long term. Therefore we may hope to be able to face the challenge of geriatric oncology in Belgium.

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