6th Post-MASCC Meeting, 14th Belgian Symposium

Belgian Society of Medical Oncology (BSMO) and the Jules Bordet Institute,

Supportive care in cancer: Is there a model?

Florian SCOTTE MDPhD

Département Interdisciplinaire d'Organisation des Parcours Patients (DIOPP)

GUSTAVE ROUSSY

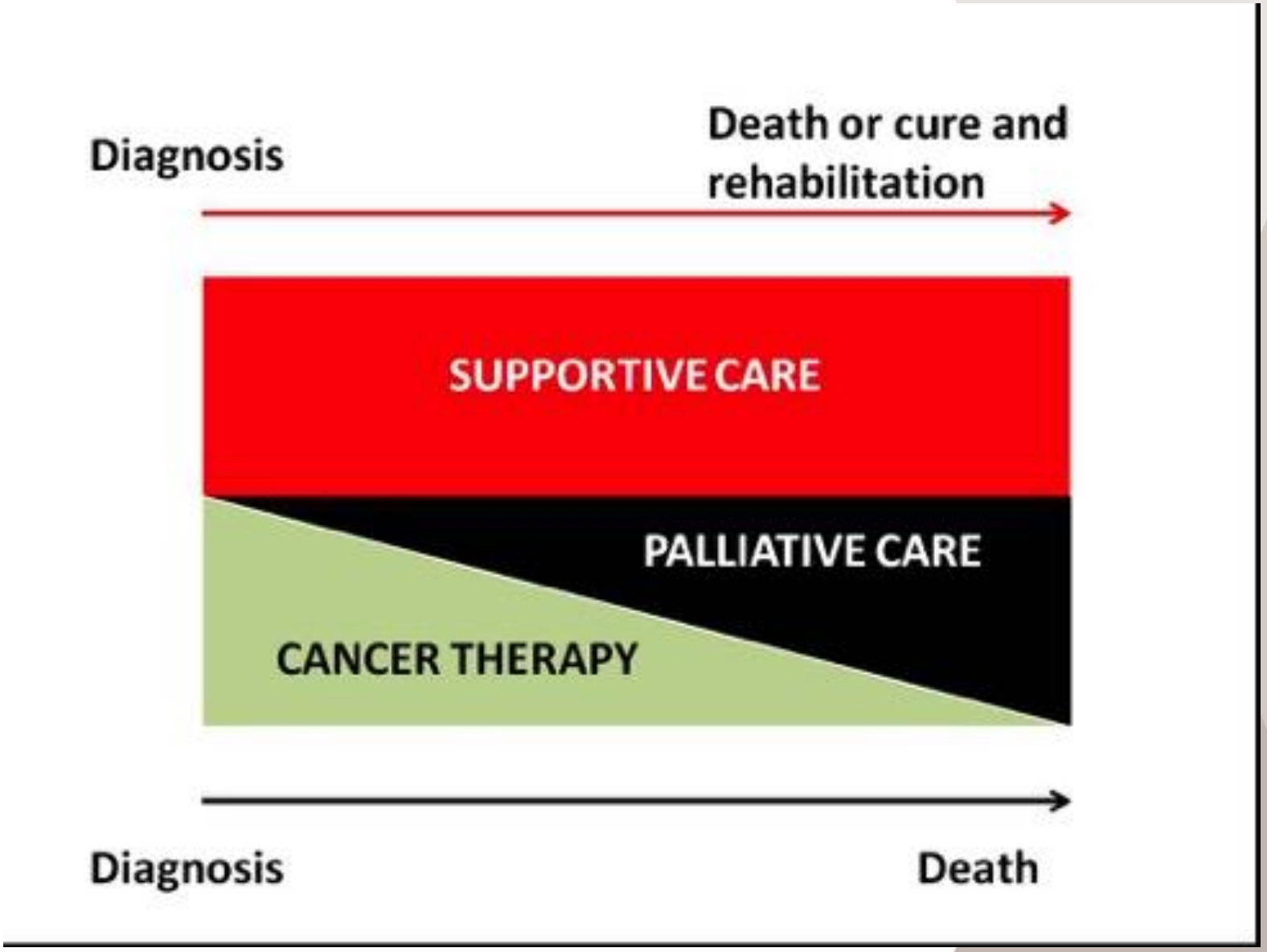
CANCER CAMPUS GRAND PARIS

Disclosures

- Consultant / Advisory Boards / Speaker : Sanofi, Roche, MSD, TEVA, Norgine, Tesaro, Prostrakan, Leo pharma, Janssen, Hospira, Boehringer, AMGEN, Pierre Fabre Oncologie, Vifor pharma, Arrow, Pfizer, BMS, Tilray.
- Associations: ASCO, ESMO, MASCC, AESCO, AFSOS.

What is Supportive Care

Supportive care is the prevention and management of the adverse effects of cancer and its treatment across the entire continuum of a patient's illness - including the enhancement of rehabilitation and survivorship


Diagnosis
Death or cure and rehabilitation
SUPPORTIVE CARE
PALLIATIVE CARE
CANCER THERAPY
Diagnosis
Death

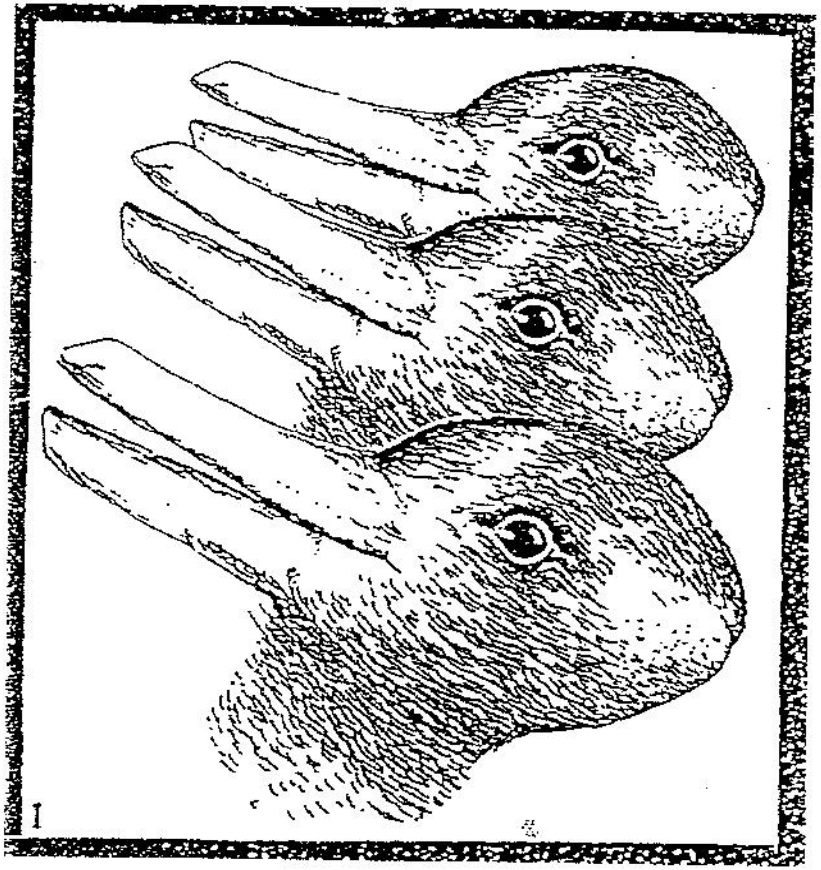
Designated Centers of Excellence in Supportive Care in Cancer

Certification Program

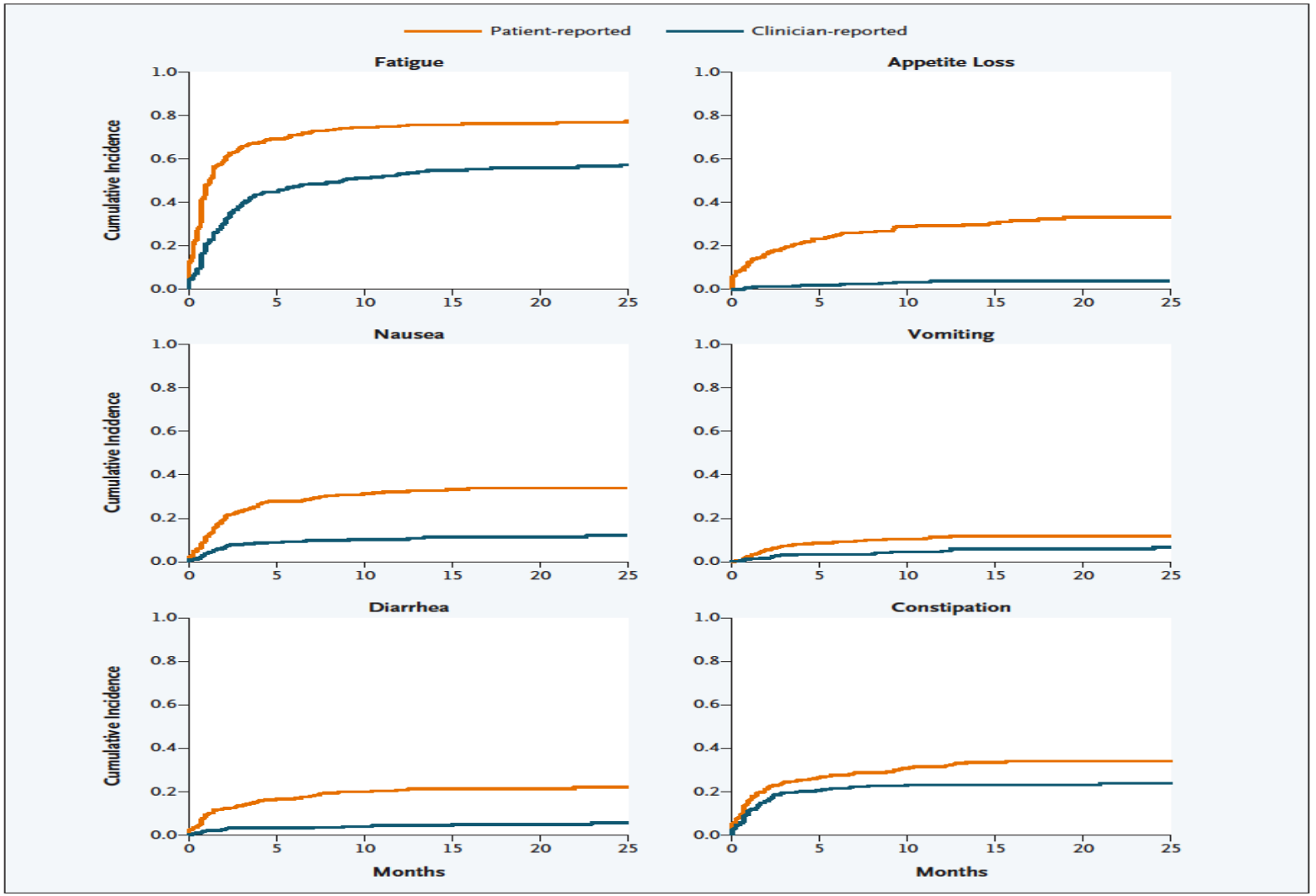
MASCC Application Form

- **www.mascc.org**
- **Center Informations (radiation oncology, palliative care unit, etc)**
- **Clinical Activities**
  - Supportive care organisations
  - Ressources
  - Multidisciplinary Approach
  - Logistics
- **Research and Educational Features**
- **Adherence to international Guidelines**
- **Narrative Section**
  - Description of the organisation
  - Practical management
  - Specificities

IS THERE ONE MODEL …



GAP OF PERCEPTION



Physician under-reporting
Patient over-reporting

From daily practice to clinical trials

Basch E. et al, NEJM 2010

Integration of oncology and palliative care: a *Lancet Oncology* Commission

Stein Kaasa, Jon H Loge*, Matti Aapro, Tit Albreht, Rebecca Anderson, Eduardo Bruera, Cinzia Brunelli, Augusto Caraceni, Andrés Cervantes, David C Currow, Luc Deliens, Marie Fallon, Xavier Gómez-Batiste, Kjersti S Grotmol, Breffni Hannon, Dagny F Haugen, Irene J Higginson, Marianne J Hjermstad, David Hui, Karin Jordan, Geana P Kurita, Philip J Larkin, Guido Miccinesi, Friedemann Nauck, Rade Pribakovic, Gary Rodin, Per Sjøgren, Patrick Stone, Camilla Zimmermann, Tonje Lundeby*

Tumour-directed approach: main focus = treating the disease

Host-directed approach: focuses on the patient with the disease

Lancet Oncol 2018; 19: e588–653

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Tumour-directed approach: main focus = treating the disease

Host-directed approach: focuses on the patient with the disease

Systematic assessment
Use of patient-reported outcomes
Active patient involvement in the decisions.

→

Better symptom control,
Improved physical and mental health,
Better use of health-care resources

Lancet Oncol 2018; 19: e588–653

The Early Palliative Care Model

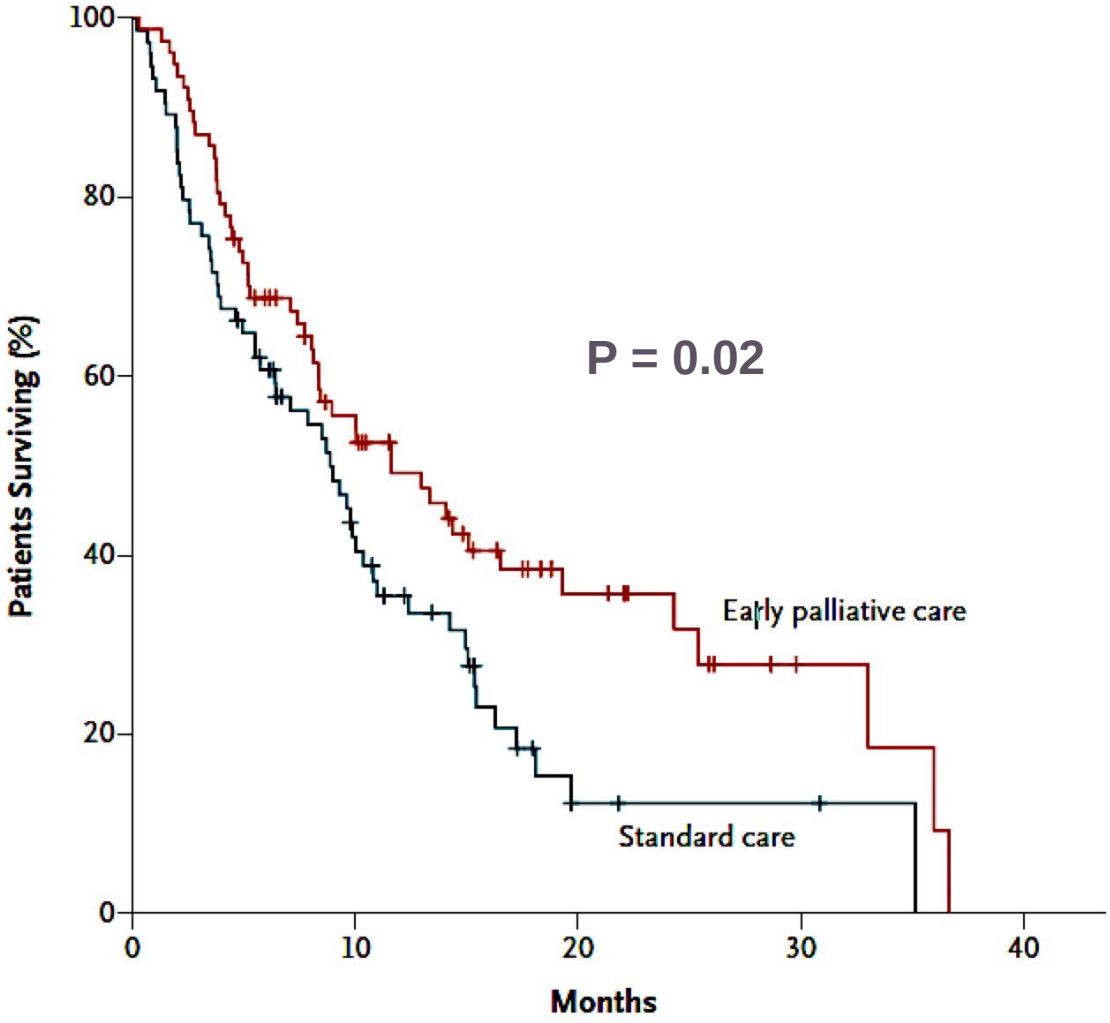
The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

Early Palliative Care for Patients with Metastatic Non–Small-Cell Lung Cancer

Jennifer S. Temel, M.D., Joseph A. Greer, Ph.D., Alona Muzikansky, M.A., Emily R. Gallagher, R.N., Sonal Admane, M.B., B.S., M.P.H., Vicki A. Jackson, M.D., M.P.H., Constance M. Dahlin, A.P.N., Craig D. Blinderman, M.D., Juliet Jacobsen, M.D., William F. Pirl, M.D., M.P.H., J. Andrew Billings, M.D., and Thomas J. Lynch, M.D.

Early Palliative Care (EPC)



Global: 9.8 months
(CI95%; 7.9 - 11.7) (151 pts),
EPC: 11.6 months
(CI 95%; 6.4 - 16.9) (77 pts)
SOC: 8.9 months
(CI 95%; 6.3 -11.4) (74 pts)

Survival Predictive Risk :
HR 1.70 (CI ; 95%;
1.14 to 2.54) (P = 0.01).

Supportive Care in Cancer

Anticancer Drugs:
Chemotherapy
Personalised Medicine
Immunotherapies

Supportive Treatments:
Antiemetics
Analgesia
Nutrition…

Organisation:
Hospital
Homecare

Therapy Knowledge

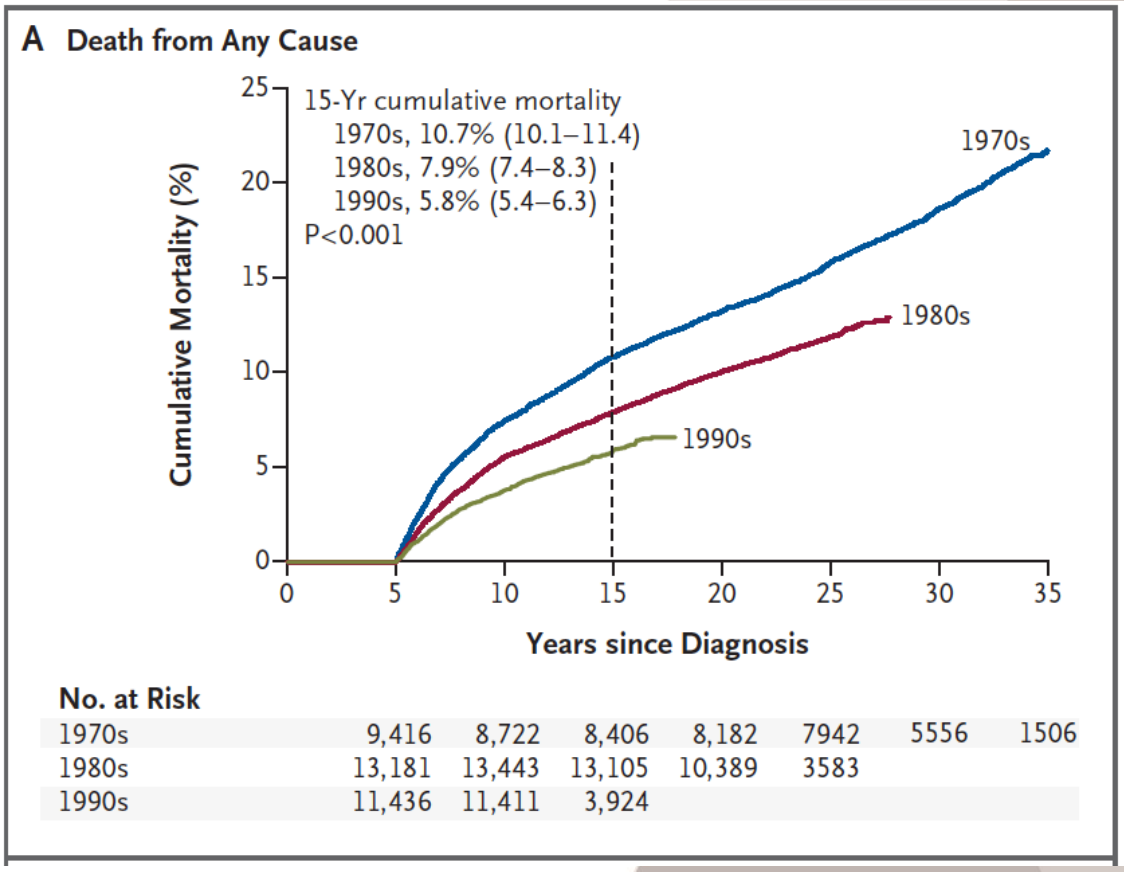
Supportive Guidelines

Models of Organisation

THERAPY KNOWLEDGE

Therapies Knowledge – Pediatric Experience

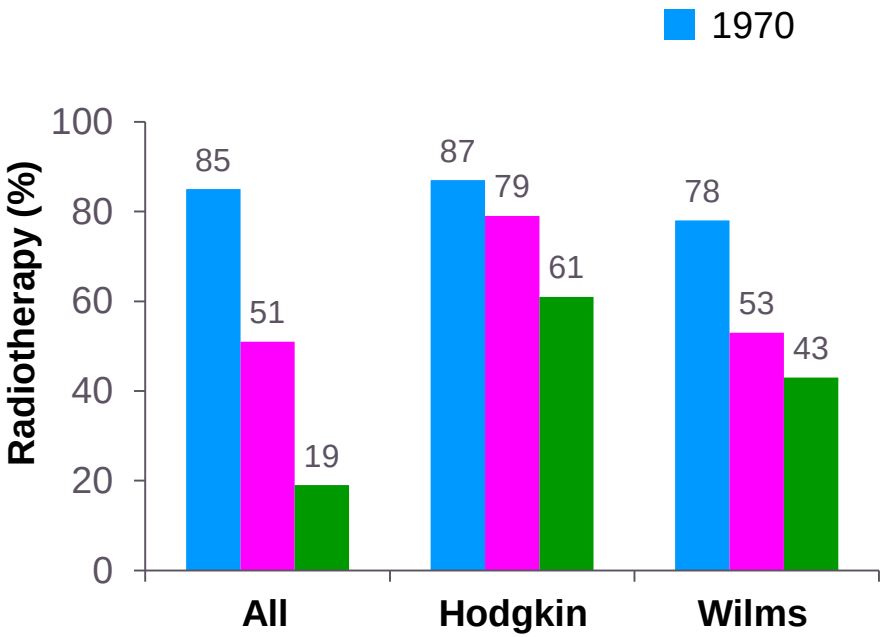
- Objectives: to compare the causes of death of pediatric cancer survivors
- Assessment of causes of late treatment-related deaths
- Hazard regression to evaluate the mortality of each treatment



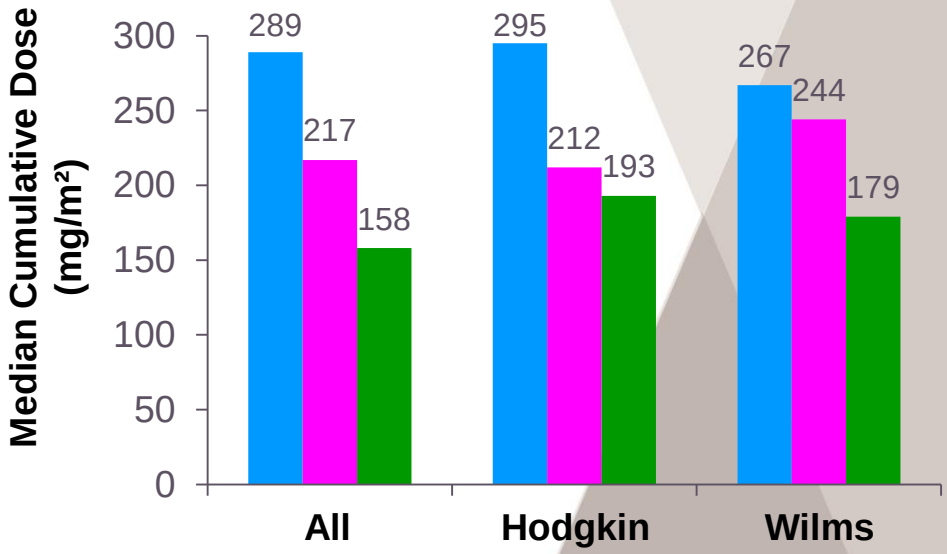
Armstrong GT et al. N Engl J Med 2016;374:833-42..

Therapies Knowledge – Pediatric Experience

Radiotherapy Exposure over the years



Anthracyclines Exposure over the years

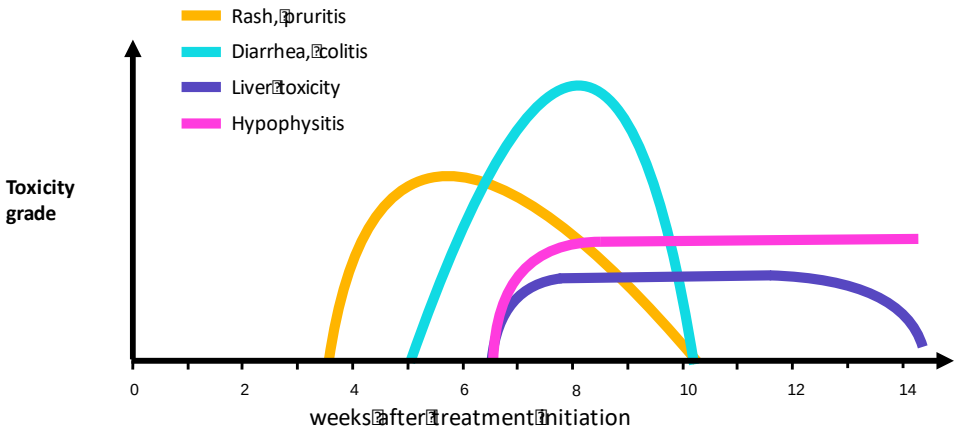


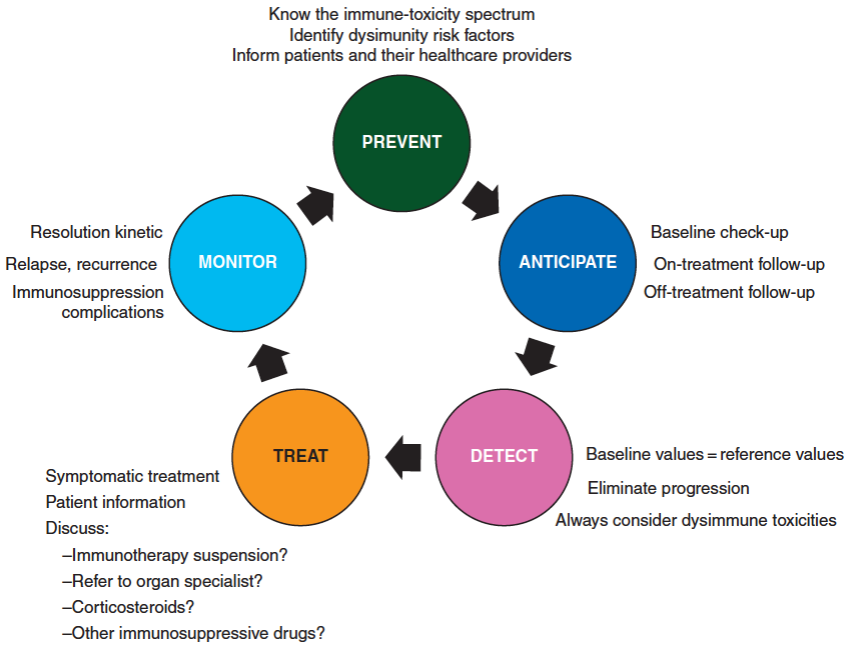
➔ **Treatment Progresses are also Safety Management Improvements**

➔ **From *Supportive Care* to *Cancer Toxicity Management***

Armstrong GT et al. N Engl J Med 2016;374:833-42..

Therapies Knowledge – Innovative Therapies





Champiat S. et al. Annals of Oncology 27: 559–574, 2016
adapted from Weber, et al., Management of immune-related adverse events and kinetics of response with ipilimumab. Journal of Clinical Oncology, 2012.

The ImmunoTOX multidisciplinary board, a descriptive study of collaborative management of immune-related adverse events.

Jean-Marie Michot, Ariane Lappara, Jérôme Le Pavec, Audrey Simonaggio, Michael Collins, Eléonora De Martin, François-Xavier Danlos, Samy Ammari, Cécile Cauquil, Stéphane Ederhy, Emmanuel Barreau, Rakiba Belkhir, Amandine Berdelou, Julien Lazarovici, Philippe Chanson, Hassan Izzedine, Andrei Seferian, Christine Le Pajolec, Capucine Baldini, Patricia Romano-Martin, Xavier Mariette, Caroline Robert, Benjamin Besse, Antoine Hollebecque, Andrea Varga, Salim Laghouati, Christine Mateus, Anne-Laure Voisin, Jean-Charles Soria, Christophe Massard, Aurélien Marabelle, Stéphane Champiat and Olivier Lambotte.

On behalf of the ImmunoTox board, Département d'Innovation Thérapeutique et des Essais Précoces (DITEP), Gustave Roussy, Université Paris Saclay, Villejuif, France

Main objectives of the multidisciplinary iTOX committee

1- Management of the iTOX in connection with a network of organs specialists

2- Discuss **a contraindication** to immunotherapy

5- Pharmacovigilance
ITOX News
REISAMIC Report

3- Discuss **a rechallenge** to immunotherapy

4- Continuing Medical Education
And improvement of guidelines

Michot JM et al. ESMO 2019; Abs 1756PD

SUPPORTIVE THERAPIES

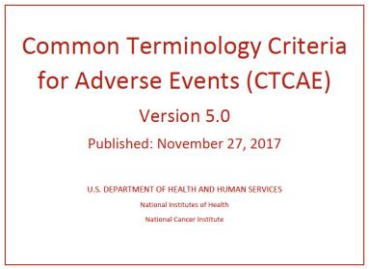
Monitoring Patient at Home: PROCHE program

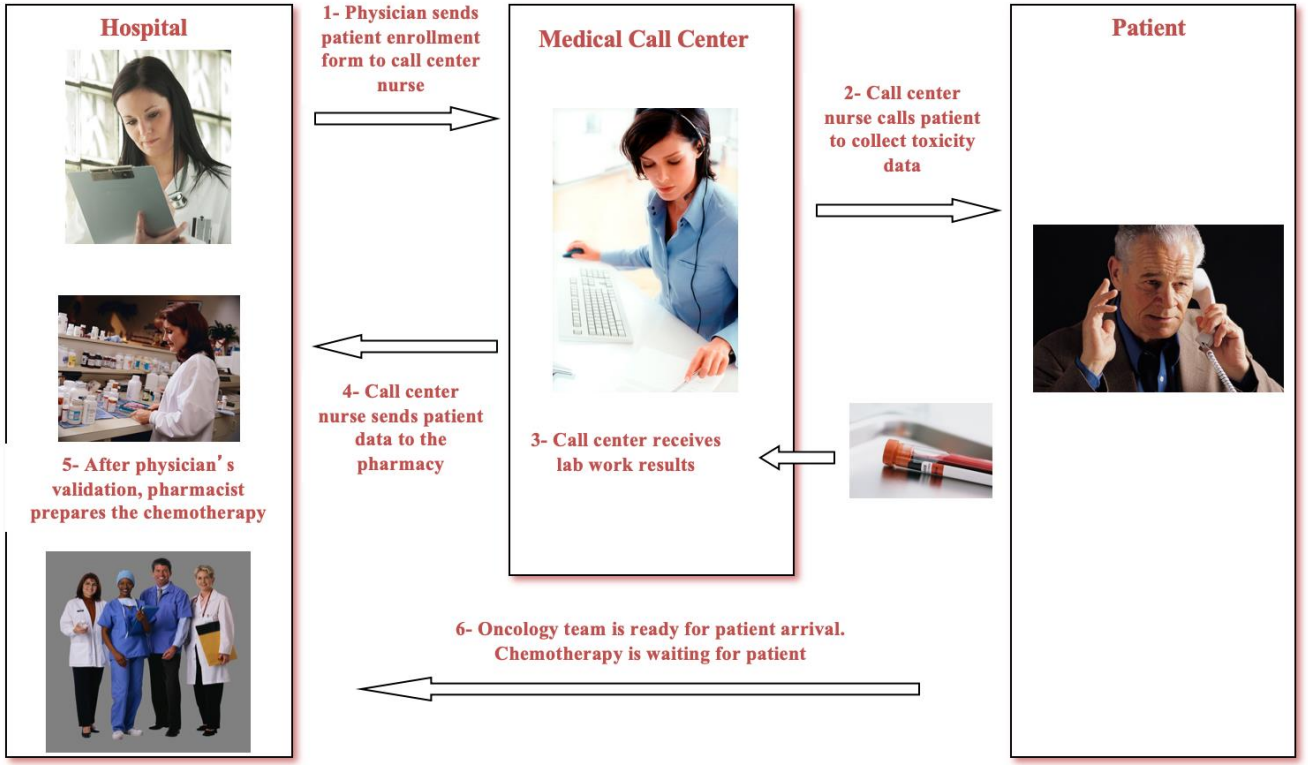
PROCHE: PRogramm of Optimisation of ChemotHErapy administration

Objective : Anticipation of drug delivery and evaluation of the toxicity profile by a medical call center dedicated to the oncology unit

PROCHE Project **:**

- ✓ **Optimises Day Hospital**
- ✓ **Improves Quality of Life**
- ✓ **Improves Safety**
- ✓ **Reduces Hospitalisation**





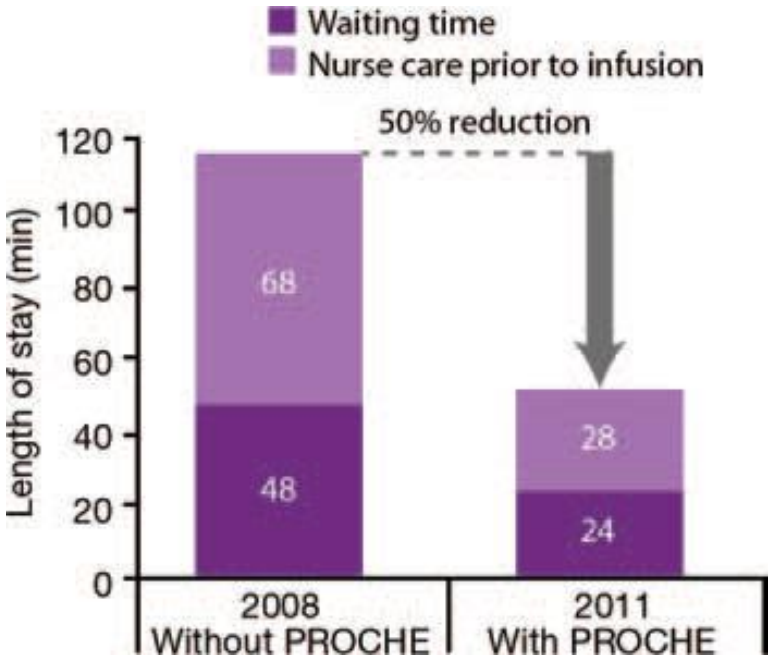
Scotté F. et al. Eur J Cancer 2013. Scotté F. Oncologist 2012..

PROCHE Program

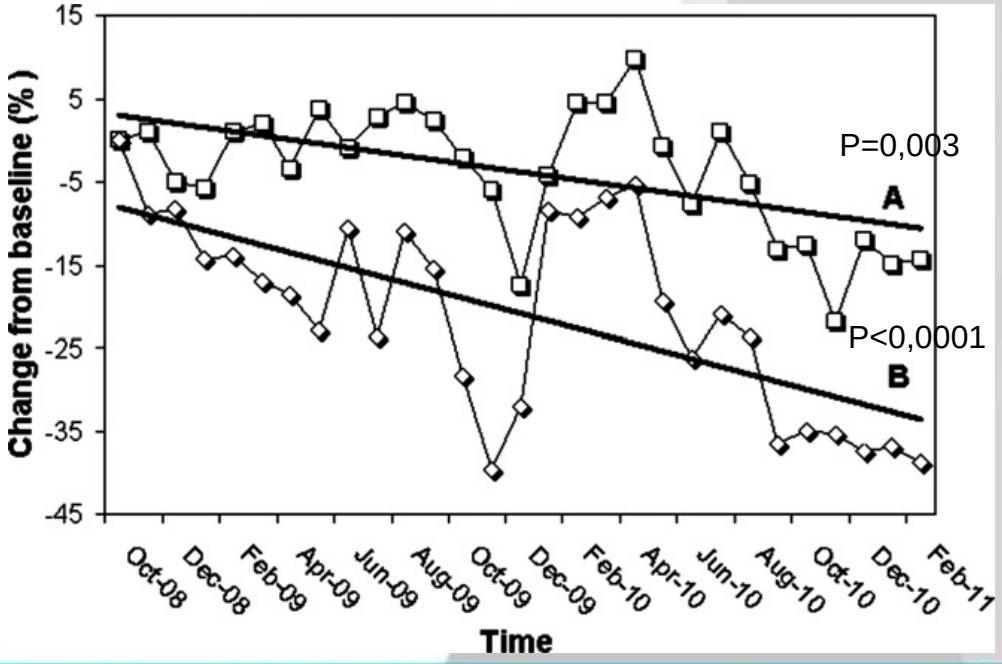
PROgramme d'Optimisation du Circuit des Chimiothérapies

Period = **01.2009 – 02.2011**
1037 pts = prospective inclusion
513 pts = standard of care cohort

Wait before treatment



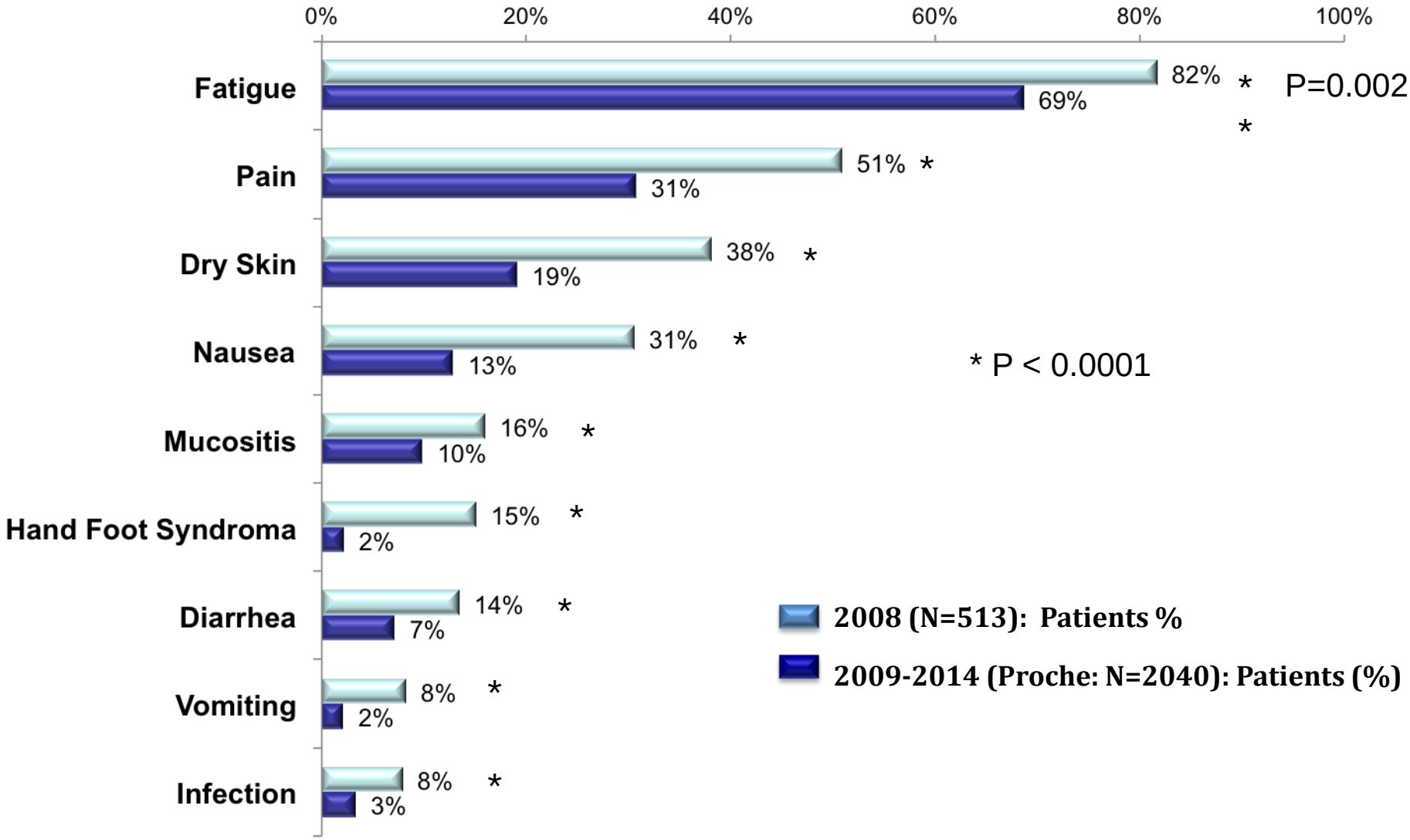
Evolution of incidence Fatigue (A) and Pain (B)



Scotté F. et al. Eur J Cancer 2013.
Scotté F. Oncologist 2012.
Scotté F et al. Supportive Care Cancer 2014.

NURSE ASSESSMENT (patients' call)
Before (2008:) / Under PROCHE (2009-14:)

PROgramme d'Optimisation du Circuit des Chimiothérapies

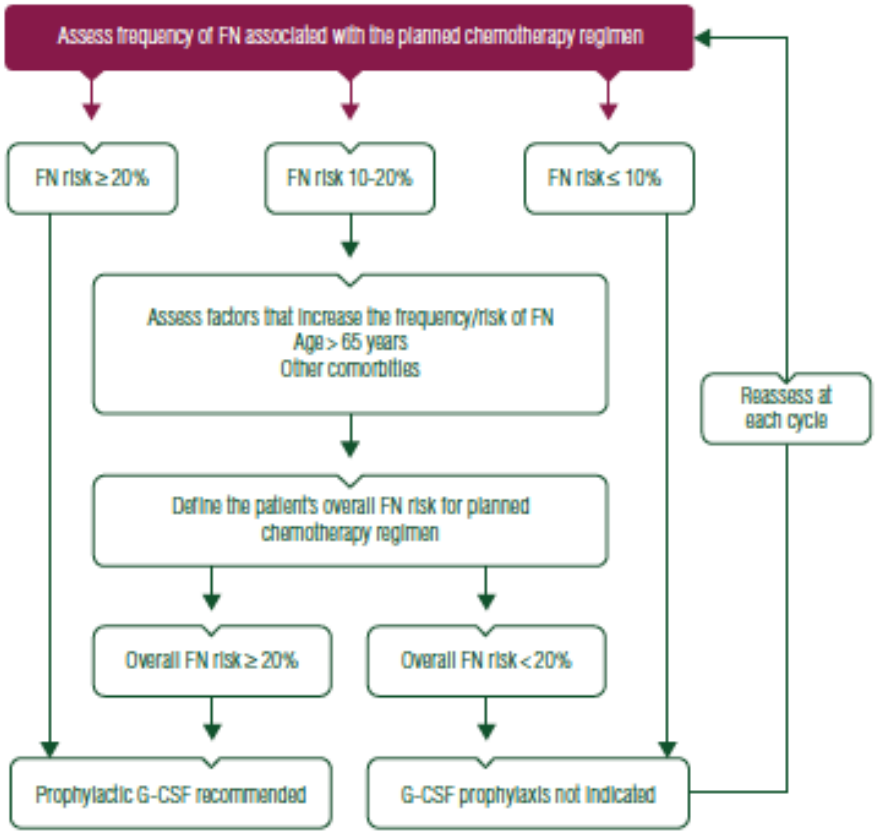


Scotté F. et al. Supportive Care Cancer 2014

ESMO GUIDELINES

Risk Factors

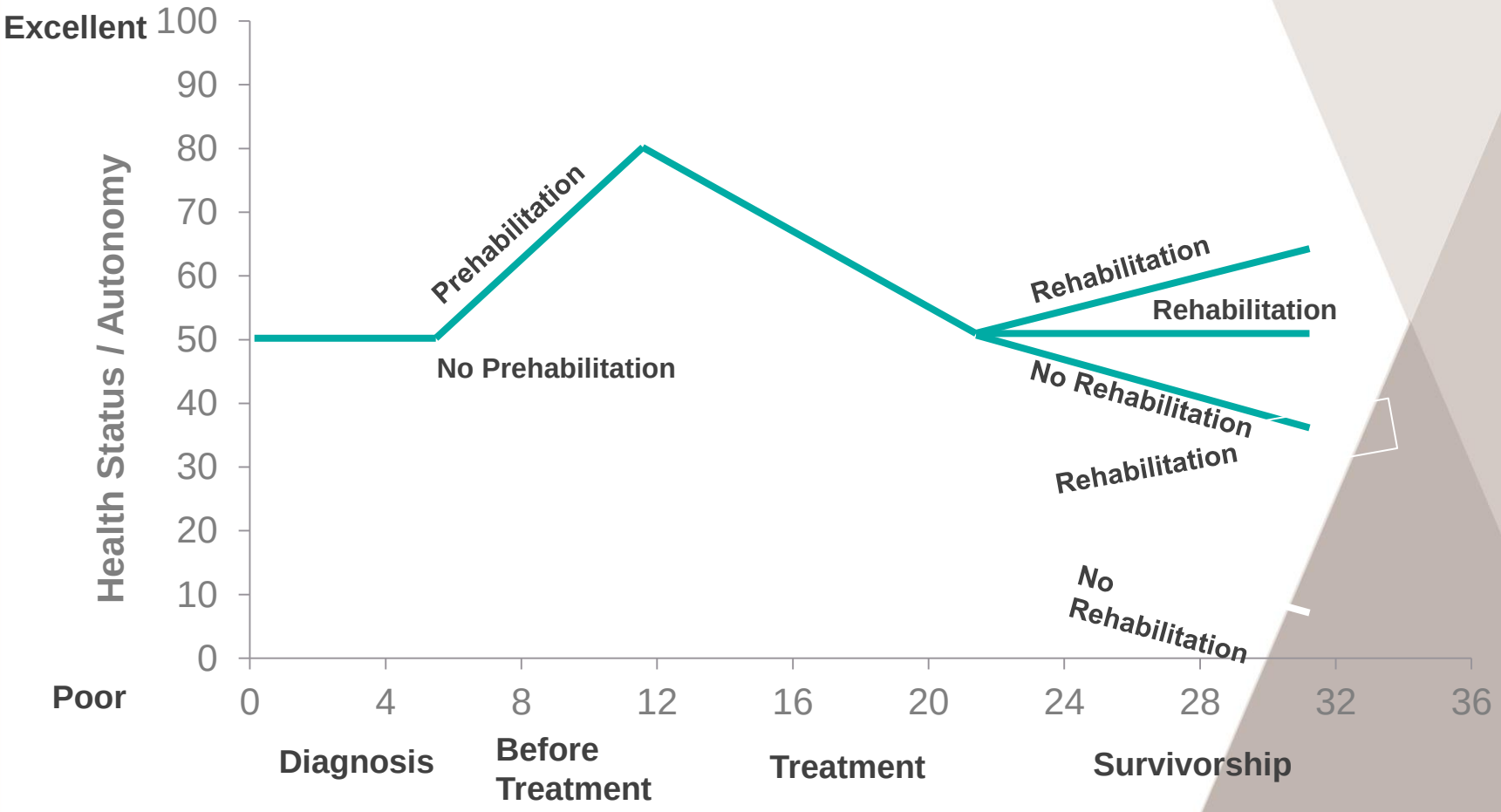
- Treatment characteristics
- Age (elderly)
- Advanced disease,
- History of prior FN,
- No antibiotic prophylaxis or granulocyte colony-stimulating factor (G-CSF) use
- Mucositis,
- Poor performance status and/or
- Cardiovascular disease



Klastersky J, et al. Annals Oncol 2016

ORGANISATIONS

Pre-Habilitation / Re-Habilitation
New Standard of Care ?



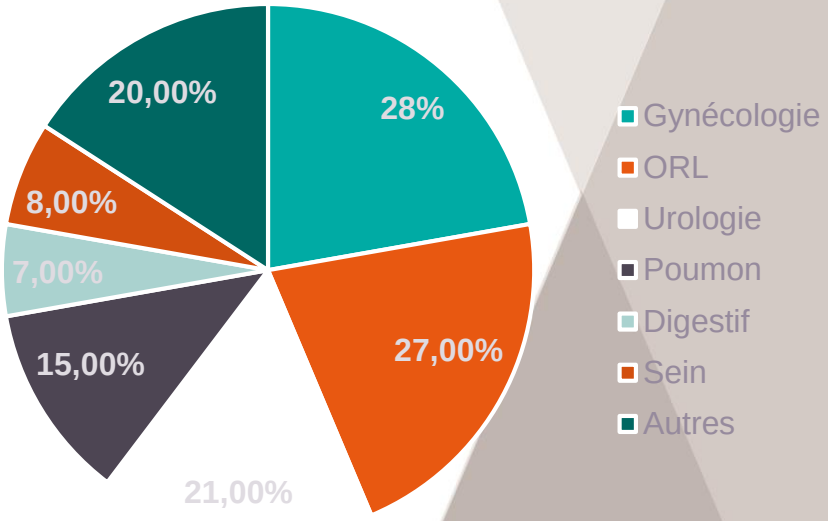
The story of Supportive Care in Cancer Unit Pompipou Paris

- **2005: Creation cros disciplinary meetings SCC**
- **2010: Creation SCUPP- 4 beds/ 1 MD**
- **2012: 1st resident**
- **2013: Increase 8 beds; 1 Fellow**
- **2015: 2nd resident**
  - → Incomes: Montant remboursé AM potentiel = **1 632 600,98 €**
  - → Physician workforce (PM) : 0,6 ETP PH – 2 CCA – 1 DES – 2 DFASM
  - → Nursing workforce ((PNM): 0,5 ETP cadre – IDE - AS

Year	2011	2012	2013	2014	2015
Number of Stays	158	192	244	326	357
DMS	10,2	8,31	8,3	8,9	7,7
Incomes reimbursed by Health System	750 896,96€				1 632 600,98 €

Objectives

- Assessment in Oncology Unit
- Limit Emergency hospitalisation
- Anticipation
- Cross Disciplinary Expertise



Objectives

- Assessment in Oncology Unit
- Limit Emergency hospitalisation
- Anticipation
- Cross Disciplinary Expertise

Transversal Team	% pts
Dietetician	64 %
Speech Therapist	13 %
Pain	80 %
Physiotherapist	50 %
Psyhologist	42 %
Social Worker	35 %

Objectives

- **Limit Emergency Department**
- **Anticipated Management, Short Stay, Home -Home**

SOURCE OF PATIENTS		
	2011	2015
Home	**59,4 %**	↑ **78,4 %**
Emergency	**17,7 %**	↓ **5,5 %**
Rehabilitation	10,1 %	2,4 %
Other Dpt	11,3 %	12 %
Palliative Unit	1,2 %	0 %

DISCHARGE OF PATIENTS		
	2011	2015
Home	**51,8 %** ↑	**68,3 %**
Rehabilitation	17 %	10,3 %
Other Dpt	12 %	5,1 %
Death	6,9 %	4 %
Palliative Unit	12 %	10,3 %

Ambulatory Supportive Care

Initial

Physiotherapist
Physical Activity
Nutrition
Psycho-oncology
Social Worker
Relaxation / CAM

PRE-HABILITATION

Toxicity

Physiotherapist
Physical Activity
Nutrition
Psycho-oncology
Social Worker
Relaxation / CAM

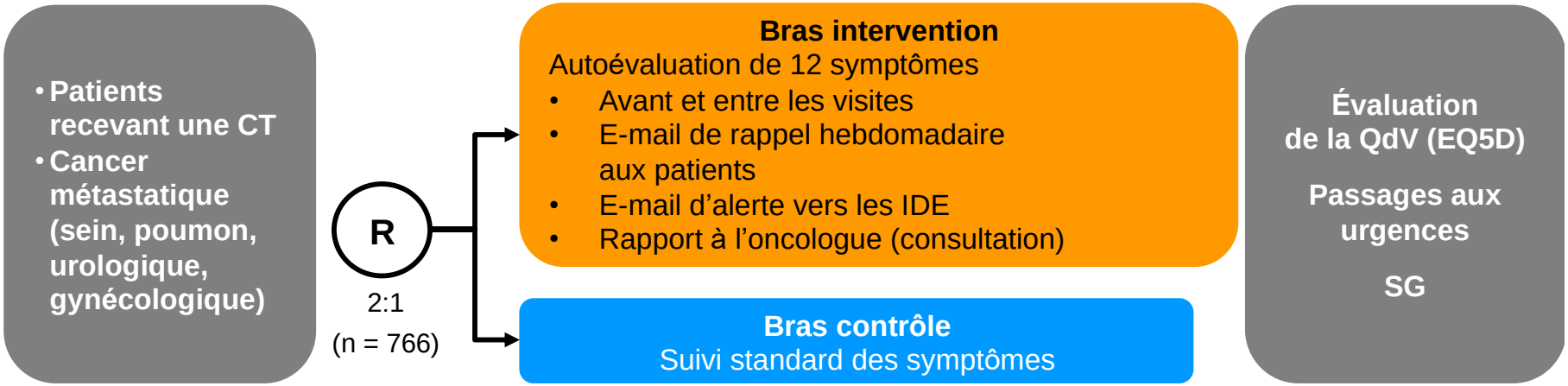
(PER)-HABILITATION

RE-HABILITATION

Survivorship

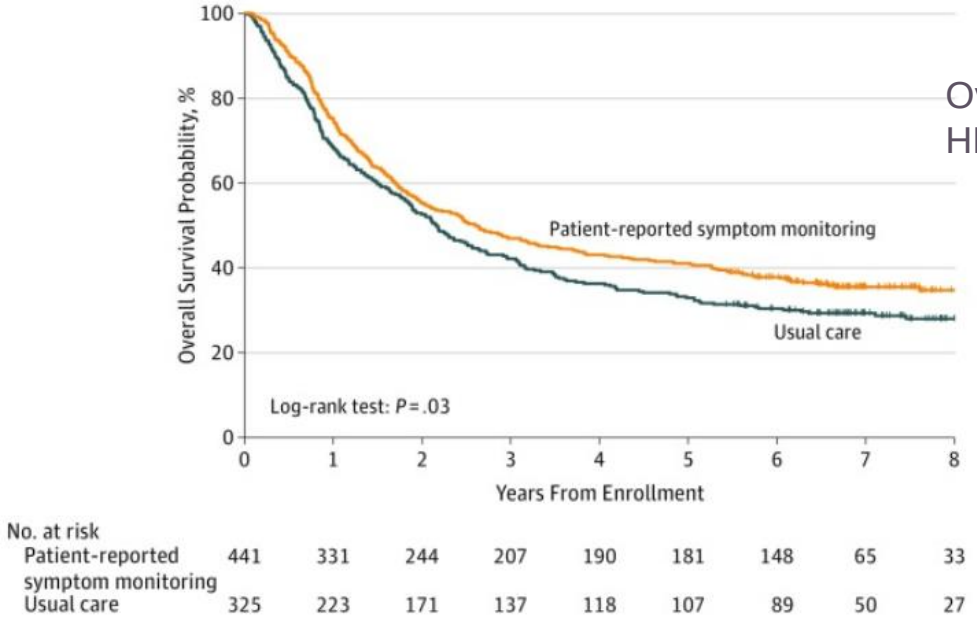
Physiotherapist
Physical Activity
Nutrition
Psycho-oncology
Social Worker
Relaxation / CAM

Patient Reported Outcomes
The STAR Study



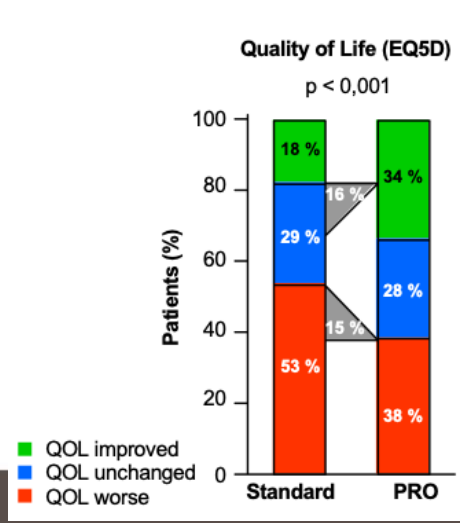
Basch E et al. JAMA 2017

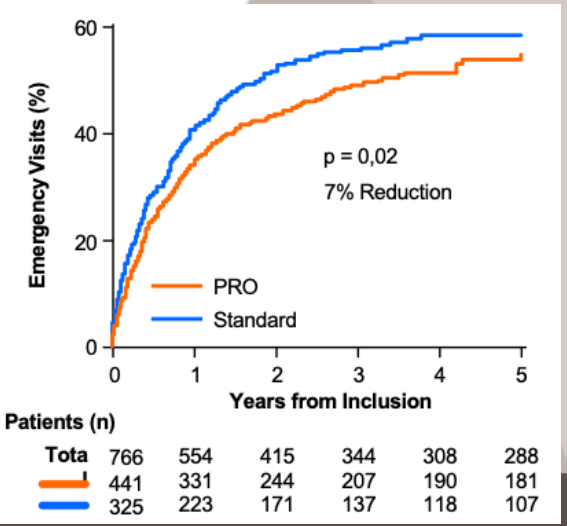
Monitoring Patients Improves: Survival



Overall Survival: 31,2 versus 26,0 months
HR = 0,832 ; CI_{95} : 0,696-0,995 ; p = 0,03

Monitoring Patients Improves: Quality of Life

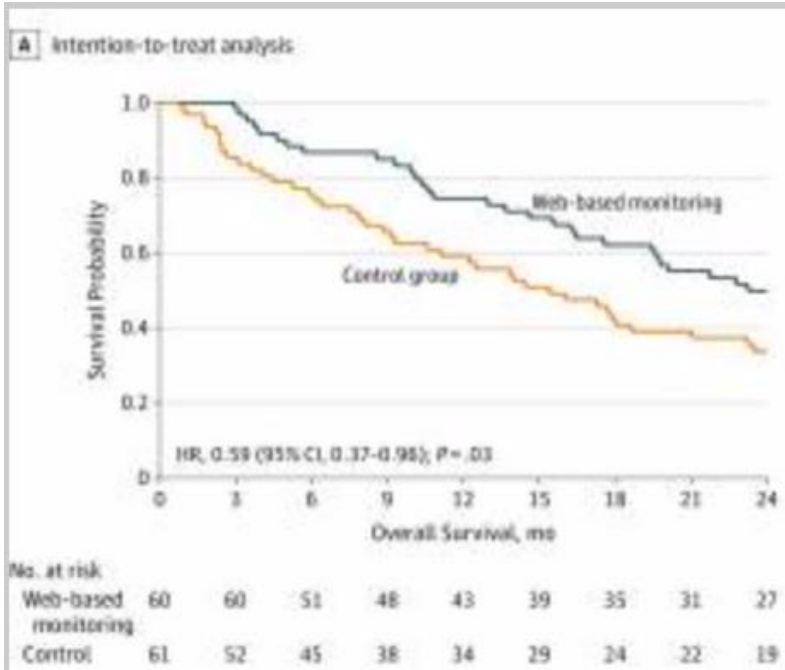




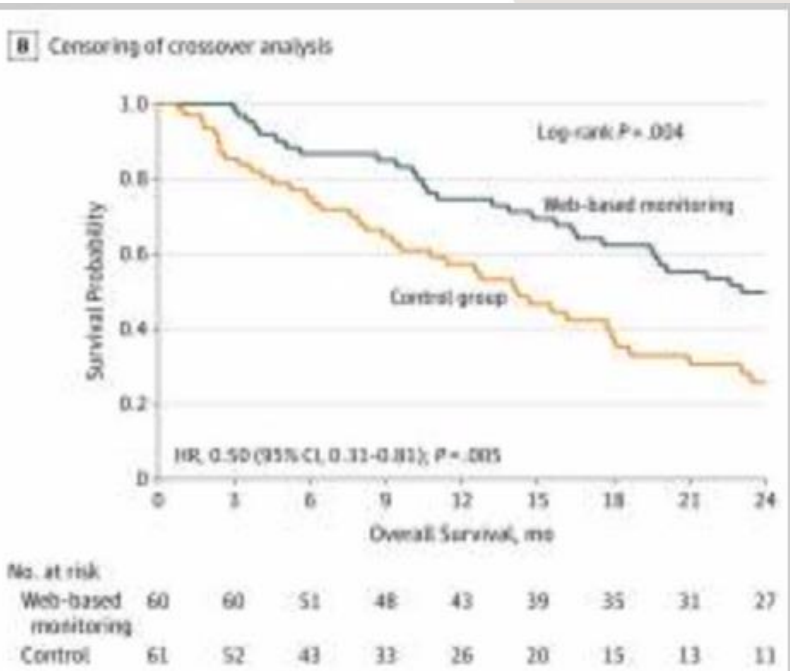
Basch EM et al., JAMA. 2017 Jul 11; 318(2): 197–198

MOOVCARE vers le remboursement du device: Survival Benefit in Lung Cancer (n=121)

Symptoms vs Scan Monitoring



Source	Median OS	12-mo OS, %	24-mo OS, %
Web-based monitoring	22.5 mo	75	50
Control	14.9 mo	56	34



Source	Median OS	12-mo OS, %	24-mo OS, %
Web-based monitoring	22.5 mo	75	50
Control	13.5 mo	53	26

Denis F. et al. JAMA. 2019 Jan 22; 321(3): 306–307.

DIGITAL MONITORING : CAPRI

Intervention combining Nurse Navigators (NNs) and a mobile application vs. standard of care (SOC) in cancer patients (pts) treated with oral anticancer agents (OAA): results of CAPRI, a single-center, randomized phase 3 trial.

Olivier Mir, Marie Ferrua, Aude Fourcade, Delphine Mathivon, Adeline Duflot-Boukobza, Sarah Naomie Dumont, Eric Baudin, Suzette Delaloge, David Malka, Laurence Albiges, Patricia Pautier, Caroline Robert, David Planchard, Stéphane de Botton, François Lemare, Marilene Guillet, Vanessa Puglisi, May Abbas, Mario Di Palma, Etienne Minvielle.

Gustave Roussy Cancer Institute, Villejuif, France

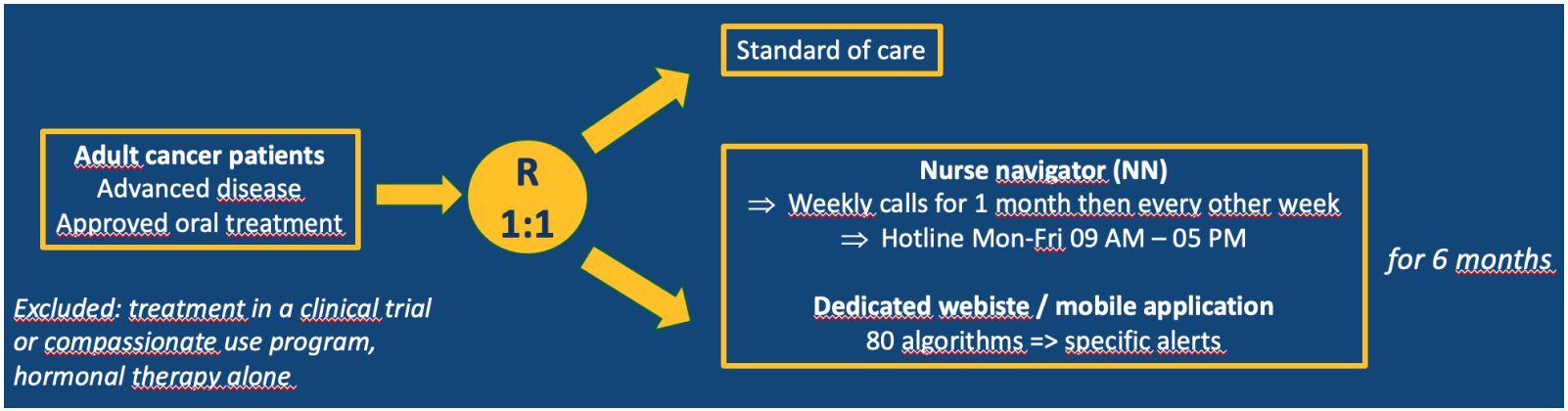
GUSTAVE ROUSSY CANCER CAMPUS GRAND PARIS

PRESENTED AT: 2020 ASCO ANNUAL MEETING #ASCO20

PRESENTED BY: Olivier Mir, MD, PhD, MPH

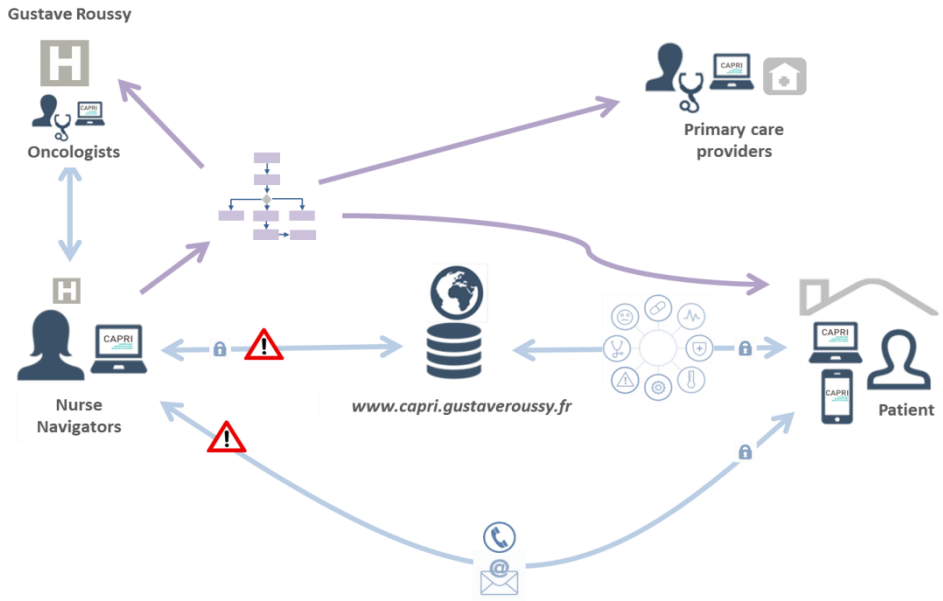
CAPRI: DESIGN

Monocenter randomized phase 3 trial =
NNs + mobile application vs. standard of care



Web/mobile application

- ➔ Dashboard for NNs to manage patients' records
- ➔ Interface for other healthcare professionals
- ➔ Patients can record tracking data, contact nurses via secure messaging, view therapy and side effect information or store documents



METHOD

- **Primary endpoint : Relative Dose Intensity (RDI) at 6 months**
  - Hypothesis : increase by 5% (85 => 90%)
  - Sample size estimation: n = 1000 (bilateral test, α = 0.05, power 80%)
  - Stratification: treatment line, treatment type (chemotherapy vs. molecular targeted therapy)

- **Secondary endpoints :**
  - Adherence (Morisky questionnaire, electronic medication monitoring system)
  - Grade 3-4 toxicity (NCI-CTCAE 4.03)
  - Patients' experience (PACIC score: visit 6)
  - Quality of life (EORTC QLQC30: visits 0, 3, 6)
  - Use of supportive care resources
  - Economic estimation of the use of healthcare resources
  - ORR (RECIST 1.1), PFS and OS

Primary endpoint: relative dose-intensity

		CAPRI	CONTROL	Total	p-value
RDI (until end of study)	Missing	0	0	0	
	N	272	287	559	
	Mean (SD)	0.9344 (0.2590)	0.8943 (0.1914)	0.9138 (0.2275)	p = 0.0426
	95% CI	[0.9035 ; 0.9653]	[0.8720 ; 0.9165]	[0.8949 ; 0.9327]	
RDI Adjusted on adherence (Morisky scale)	Missing	17 (6.3%)	22 (7.7%)	39 (7.0%)	
	N	255	265	520	
	Mean (SD)	0.8417 (0.2632)	0.7998 (0.2090)	0.8204 (0.2378)	p = 0.0451
	95% CI	[0.8093 ; 0.8742]	[0.7745 ; 0.8251]	[0.7999 ; 0.8408]	

Grade 3-4 toxicity

		CAPRI	CONTROL	Total	p-value
	N	272	287	559	
At least one toxicity grade ≥ 3	No	197 (72.4%)	181 (63.1%)	378 (67.6%)	
	Yes	75 (27.6%)	106 (36.9%)	181 (32.4%)	p = 0.02
Skin toxicities	No	262 (96.3%)	265 (92.3%)	527 (94.3%)	
	Yes	10 (3.7%)	22 (7.7%)	32 (5.7%)	p = 0.04
Metabolic /nutritional toxicities	No	263 (96.7%)	266 (92.7%)	529 (94.6%)	
	Yes	9 (3.3%)	21 (7.3%)	30 (5.4%)	p = 0.04

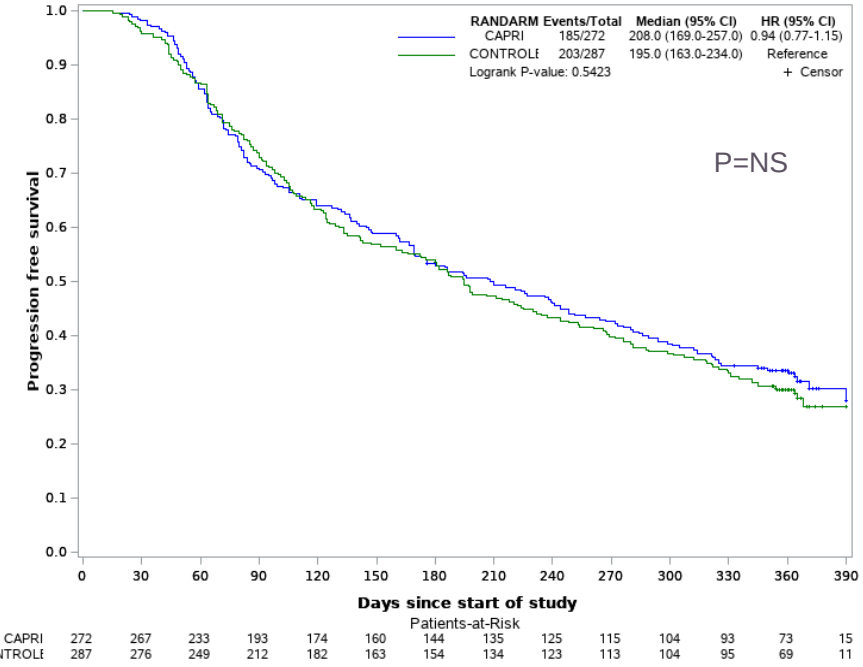
Emergency visits

		CAPRI	CONTROL	Total	p-value
	N	272	287	559	
Patients with emergency hospitalizations	No	231 (84.9%)	224 (78.0%)	455 (81.4%)	p = 0.04
	Yes	41 (15.1%)	63 (22.0%)	104 (18.6%)	

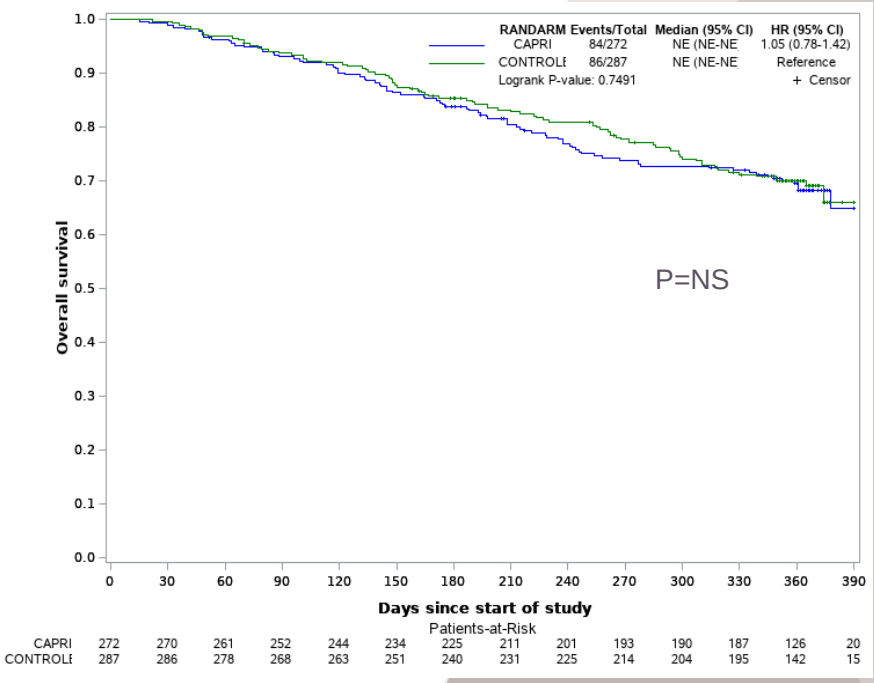
Variable		CAPRI	CONTROL	Total	p-value
	N	272	287	559	
Use of supportive care resources	No	153 (56.3%)	186 (64.8%)	339 (60.6%)	
	Yes	**119 (43.8%)**	**101 (35.2%)**	**220 (39.4%)**	**p = 0.04**
Type	Analgesia	10 (3.7%)	15 (5.2%)	25 (4.5%)	p = 0.38
	Palliative care	17 (6.3%)	15 (5.2%)	32 (5.7%)	p = 0.60
	Nutrition	39 (14.3%)	25 (8.7%)	64 (11.4%)	p = 0.04
	Psychologist	37 (13.6%)	41 (14.3%)	78 (14.0%)	p = 0.82
	Social worker	59 (21.7%)	31 (10.8%)	90 (16.1%)	p = 0.0005
	Other	14 (5.1%)	24 (8.4%)	38 (6.8%)	p = 0.13

RESPONSE AND SURVIVAL

Progression Free Survival

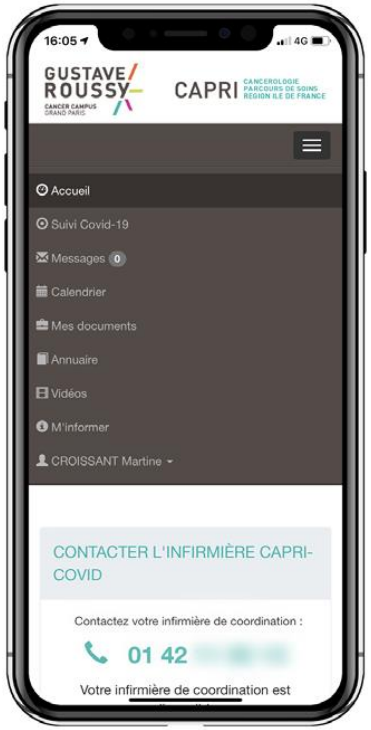


Overall Survival



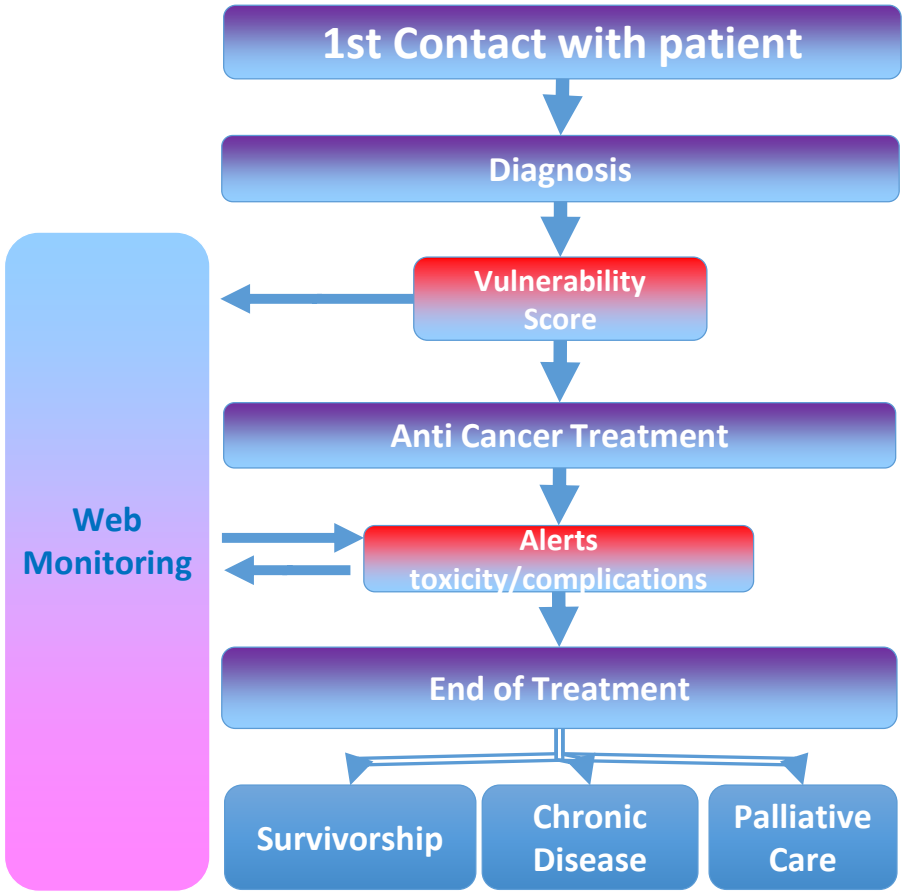
COVID-19 Pandemic: CAPRI Covid App

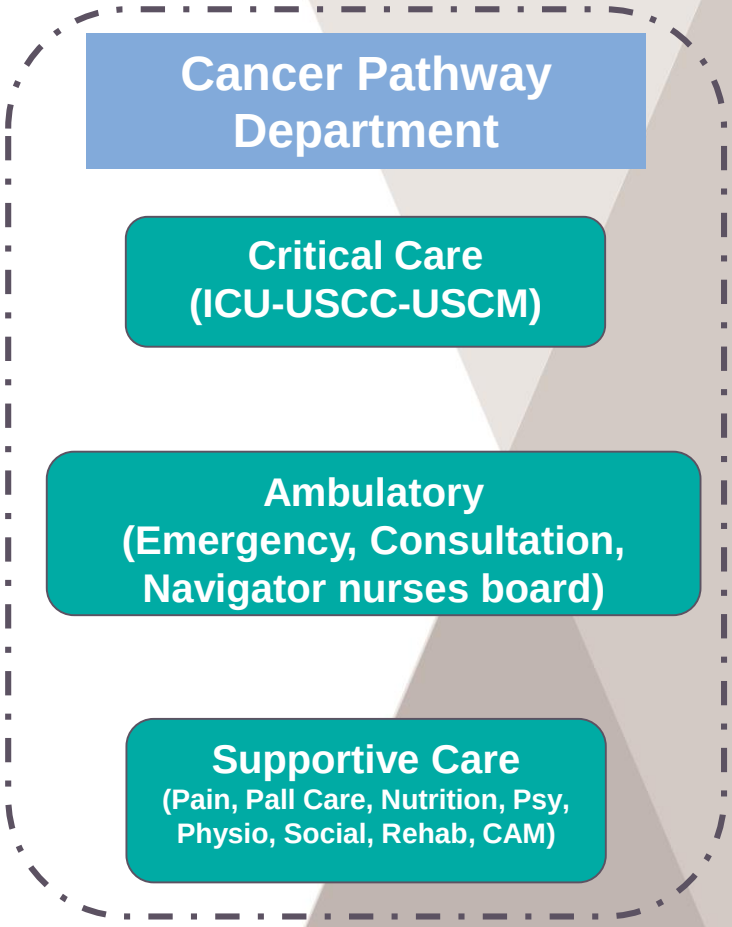
Google Play App Store



Scotte F. et al. Eur J Cancer, 2020

Gustave Roussy Model





"Supportive care makes excellent cancer care possible"

Dorothy M.K. Keefe,
past President of MASCC