Quand admettre un patient onco-hémato aux soins intensifs?

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Déclaration

- Absence de conflits d'intérêt avec cette présentation

Les principales indications amenant un patient avec un cancer en soins intensifs

- Complication médicale du cancer ou de son traitement
- Recouvrance et soins postopératoires
- Traitement anticancéreux intensif, à risque et/ou nouveau
- Affection sévère non liée au cancer ou à son traitement (comorbidités)

TABLE 1. Main Indications for Medical ICU Admission

Cancer-related complications
- Superior vena cava (SVC) obstruction
- Airways obstruction or infiltrations
- Hemoptysis
- Pleural effusion
- Pulmonary embolism
- Electrolytes abnormalities
- Neurologic complications

Treatment-related complications
- Radiation pneumonitis
- Chemotherapy induced pulmonary toxicity
- Bronchoscopic or other procedural complications
- Post cancer resection

Infections
- Directly related to the cancer, e.g., obstructive pneumonia
- Suppression of inflammatory response and neutropenia secondary to chemotherapy

Underlying co-morbid illnesses
- Cardiovascular diseases
- Pulmonary diseases
- Others

(*J Thorac Oncol.* 2011;6: 633–638)

Tableau 1 Critères d'admission des patients après thoracotomie en unité de haute dépendance : patients à risques moyen à élevé.

Comorbidités préopératoires et statut fonctionnel
Insuffisance cardiaque (fraction d'éjection ventriculaire gauche < 40 %, antécédents d'insuffisance cardiaque)
Pathologie coronarienne (angor, antécédents d'infarctus...)
Arythmies cardiaques ou bloc de conduction
Insuffisance rénale
Pathologie vasculaire cérébrale ou artérite périphérique symptomatique
Bronchopneumopathie chronique obstructive sévère (FEV1 < 50 % des valeurs prédites)
Probable nécessité de ventilation non invasive (par exemple apnée du sommeil)
Dysfonction hépatique (Score de Child Pugh A ou Model for End-Stage Liver Disease (MELD) > 8)
VO_2 max > 15 mL/kg/min
Pneumonectomie, bilobectomie, résection pulmonaire bilatérale
Résection pulmonaire étendue impliquant le diaphragme, le péricarde ou la paroi
Saignement intraopératoire majeur
Événement postopératoire immédiat
Instabilité hémodynamique (signe électrocardiographique d'ischémie myocardique, nécessité de soutien hémodynamique par vasopresseur, nécessité de remplissage ou transfusion sanguine)
Nécessité de ventilation non invasive

Adapté selon Brunelli et al. [12].

Quand ?

Il faut tenir compte d'un double problème souvent intriqué

- Problème chronique (contexte) : cancer
  - Projet thérapeutique
  - Souhaits du patient
- Problème nécessitant les soins intensifs : complication le plus souvent
  - Traitement spécifique: très peu de données sur les complications individuelles amenant à l'USI dans la littérature
  - Support USI : surveillance intensive, RCR, VMI, VNI, EER, amines

En évitant les extrêmes

- En admettant tous les patients cancéreux en état critique
- En refusant d'admettre un patient en état critique sous prétexte du cancer

Decisions about Resuscitation: Inequities among Patients with Different Diseases but Similar Prognoses

Robert M. Wachter, MD; John M. Luce, MD; Norman Hearst, MD, MPH; and Bernard Lo, MD

Annals of Internal Medicine. 1989;**111**:525-532.

Considérer le projet thérapeutique antinéoplasique

- Où en est l'affection cancéreuse?
- Quel est le projet thérapeutique?

Not-for-resuscitation orders in cancer patients — principles of decision-making

Ian E Haines, John Zalcberg and John D Buchanan

THE MEDICAL JOURNAL OF AUSTRALIA Vol 153 August 20, 1990

Le stade fonctionnel du cancer

- Stade I: diagnostic
- Stade II: traitement à visée curative
- Stade III: traitement à visée de contrôle (existence d'un projet thérapeutique)
- Stade IV: stade pivot
- Stade V: soins palliatifs

Med J Aust 153: 225; 1990

Le projet thérapeutique

- Programme de soins
  - Défini par tumeurs en Belgique
- Nouvelles thérapeutiques efficaces
  - Immunothérapies nouvelles
- Traitement expérimental

Programme de soins oncologiques - IJB

Tables des matières

1. Cancers bronchopulmonaires 1
   1.1. Cancers bronchiques à petites cellules 2
      1.1.1. Maladies très limitées (stades I et II) 2
      1.1.2. Maladies limitées 2
      1.1.3. Maladies étendues 2
      1.1.4. Traitement de deuxième ligne 2
      1.1.5. soins de soutien 2
   1.2. Cancers bronchiques non à petites cellules 3
      1.2.1. Cancers in situ et microinvasif 3
      1.2.2. Nodules suspects sans diagnostic anatomo-pathologique 3
      1.2.3. Tumeurs résécables : stades I à IIIA 3
      1.2.4. Tumeurs non résécables non métastatiques : stades III 3
      1.2.5. Tumeurs avancées : certains stades III et stades IV 3
      1.2.6. Traitement de deuxième ligne et plus 4
      1.2.7. Soins de soutien 4
   1.3. Tumeurs de malignité intermédiaire (carcinoïdes) 4
2. Mésothéliomes 4
3. Thymomes 5
4. Métastases pulmonaires 5
5. Autres tumeurs thoraciques 5

Cas des patients sans limite thérapeutique

Les caractéristiques du cancer n'affectent pas le pronostic du séjour à l'USI

Scoring systems in cancer patients admitted for an acute complication in a medical intensive care unit

Jean-Paul Sculier, MD, PhD; Marianne Paesmans, MSc; Eveline Markiewicz, RN; Thierry Berghmans, MD

Objective: To validate and compare two severity scoring systems, the Acute Physiology and Chronic Health Evaluation (APACHE) II and Simplified Acute Physiology Score (SAPS) II and to determine their prognostic value for mortality during the hospital stay and after discharge in a specific group of cancer patients admitted to intensive care unit (ICU) for an acute medical complication.

Design: Prospective cohort study.

Setting: The medical ICU of a European cancer hospital.

Subjects: A total of 261 consecutive cancer patients admitted to ICU for an acute medical complication.

Measurements: Variables included into the APACHE II and SAPS II scores, as well as characteristics of the cancer, were collected during the first 24 hrs of the ICU stay. Hospital and in-ICU mortalities, overall survival, and survival after day 30 were measured.

Results: Observed hospital and ICU mortalities were 33% and 23%. Median survival time was 94 days and 1-yr survival rate was 23%. The mean predicted risk of death was 26.5% with APACHE II and 26.1% with SAPS II. Correlation between both systems was excellent. Calibration for mortality prediction ability of both scoring systems was similar. Discrimination between survivors and nonsurvivors was superior with SAPS II according to the area under the receiver operating characteristic curve but was better with APACHE II for survivors using thresholds minimizing the overall misclassification rates. Multivariate prognostic analysis showed that the scoring systems were the only significant factors for hospital and in-ICU mortalities, whereas characteristics related to the cancer (extent, phase) were the factors predicting survival after discharge.

Conclusion: The prognosis of cancer patients admitted to ICU for a medical problem is first determined by the acute physiologic changes induced by the complication, as evaluated by the severity scores. There is no major difference between the two assessed scoring systems. They are, however, not accurate enough to be used in the routine management of these patients. After recovery from complications, characteristics related to the neoplastic disease, however, retrieve their independent influence on the further survival. (Crit Care Med 2000; 28:2786–2792)

Key Words: scoring; cancer; critical care; neoplasm; Acute Physiology and Chronic Health Evaluation II; Simplified Acute Physiology Score II

Table 1. Principal patient characteristics

	No. of Patients	%
Total number of patients	261	100
Median age (yrs)	63	—
Range	15–86	—
Type of cancer		
Hematologic	61	23
Lymphoma	17	7
Acute leukemia	12	5
Chronic leukemia	8	3
Myeloma	8	3
Myelodysplastic syndromes	14	5
Other	2	1
Solid tumors	200	77
Organ		
Lung cancer	67	23
Breast cancer	41	20
Head and neck cancer	18	9
Brain tumor	16	8
Digestive cancer	14	7
Gynecologic cancer	10	5
Other	34	17
Extent		
Locoregional	65	33
Metastatic	124	62
Unknown	11	6
Neoplastic disease phase		
Diagnostic	17	7
Curative	63	24
Controllable	143	55
Pivotal	35	13
Palliative	3	1
Cancer status		
Induction treatment	110	42
Complete remission		
Off therapy	29	11
Under therapy	6	2
Partial remission	23	9
No change	8	3
Progression	69	26
Unknown	22	8
Causes of admission		
Cardiac complications	73	28
Respiratory complications	64	25
Hematologic and infections complications	54	21
Metabolic complications	34	13
Neurologic complications	31	12
Digestive complications	15	6

—, not applicable.

Table 3. Comparison of the scoring systems performances to predict intensive care unit (ICU) and hospital mortalities

	ICU Mortality	Hospital Mortality
Mortality	Observed, 23%	Observed, 33%
APACHE II predicted, 26.5%		
SAPS II predicted, 26.1%		
Goodness-of-fit		
Calibration curves	SAPS II > APACHE II	SAPS II ~ APACHE II
Lemeshow-Hosmer method	SAPS II > APACHE II (p = .25 vs. < .05 for APACHE II)	SAPS II = APACHE II (both p < .001)
Discrimination		
Area under the ROC curve	SAPS II (area = 0.70) > APACHE II (area = 0.63)	SAPS II (area = 0.67) > APACHE II (area = 0.60)
Classification tables		
Correct classification rate at best threshold	APACHE II, 81% at 70% SAPS II, 78% at 60%	APACHE II, 70% at 70% SAPS II, 70% at 60%
Prediction in survivors	APACHE II > SAPS II (Correct prediction, 99% vs. 94%; p = .006)	APACHE II > SAPS II (Correct prediction, 99% vs. 95%; p = .04)
Prediction in nonsurvivors	APACHE II = SAPS II (Correct prediction, 20% vs. 25%; NS)	APACHE II = SAPS II (Correct prediction, 14% vs. 21%; NS)
Prognostic factor analysis	SAPS II = APACHE II (p < .001)	SAPS II = APACHE II (p < .001)

APACHE, Acute Physiology and Chronic Health Evaluation; SAPS, Simplified Acute Physiology Score; ROC, receiver operating characteristic.

Table 4. Univariate prognostic factors for intensive care unit (ICU) and hospital mortality

Variables	ICU Mortality RR	p Value	Hospital Mortality RR	p Value
APACHE II score (continuously assessed)	1.1	<.001	1.07	.0003
SAPS II score (continuously assessed)	1.05	<.001	1.05	<.001
Mean blood pressure (continuously assessed)	1.03	.02	1.02	.02
Pulse	1.02	.001	1.01	.02
Arterial pH	37.1	.005	51.3	.04
Hematocrit	0.96	.06	0.96	.02
Glasgow Coma Scale score	0.22	.006	0.32	.009
Platelet count	0.99	.005	0.98	.02
Leukocytosis	0.82	.003	0.86	.06
Acute renal failure	2.84	.002	1.9	.04

RR, relative risk; APACHE, Acute Physiology and Chronic Health Evaluation; SAPS, Simplified Acute Physiology Score.

In multivariate analysis, the only hazard ratio significant variable was SAPS II (HR = 1.02; p = .001).

We also performed the same analysis considering only those patients alive after hospital discharge to determine the prognosis after intensive care. A total of 174 patients were available for this analysis with a median follow-up of 703 days (range, 0–1,295 days). The scoring systems, APACHE II and SAPS II, were not more significant factors for survival, but the variables related to the neoplastic disease were the explanatory selected covariates, namely locoregional cancer ($p = .008$) and diagnostic or curative disease phase ($p = .0002$).

When a cancer patient is admitted to an intensive care unit for an acute problem, the short-term prognosis essentially depends on the acute physiologic changes induced by the complication, as reflected by the identification of the severity of illness scores in the multivariate analysis as the only significant factor. The severity scores, however, are not accurate enough to be used in the routine management of these patients.

Confirmé par une étude avec le score spécifique

Support Care Cancer (2004) 12:234–239
DOI 10.1007/s00520-003-0580-3

ORIGINAL ARTICLE

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J. P. Sculier

Is a specific oncological scoring system better at predicting the prognosis of cancer patients admitted for an acute medical complication in an intensive care unit than general gravity scores?

En résumé

Variable	***Mortalité hospitalière***	***Survie après la sortie d'hospitalisation***
APACHE II	< 0,001	NS
IGS II	< 0,001	NS
Extension du cancer	NS	0,008
Phase du cancer	NS	0,0002

Les patients cancéreux avec une complication sévère requérant les soins intensifs

- Souvent compliqué !

Caractéristiques

- Spectre différent des complications et problèmes rencontrés
- Spécificité propre de certaines pathologies
- Existence d'une maladie sévère sous-jacente

Le cancer sous-jacent

- Source de fragilité (« terrain »):

- immunosuppression
- neutropénie
- troubles de l'hémostase
- dissémination métastatique
- syndromes paranéoplasiques

- A la base du pronostic à moyen et long termes

L'abord thérapeutique

Le traitement devra intégrer:

1. les soins intensifs de support et le traitement spécifique pour la complication
2. le traitement anticancéreux de fond, parfois nécessaire au contrôle de la complication
3. le traitement de support des complications du traitement anticancéreux

(! mauvais indice de performance du patient de réanimation)

Intensive Care Med (2006) 32:93–99
DOI 10.1007/s00134-005-2836-5

ORIGINAL

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Outcome in severely ill patients with hematological malignancies who received intravenous chemotherapy in the intensive care unit

Clinical Investigations

Intensive care in patients with newly diagnosed malignancies and a need for cancer chemotherapy*

Michael Darmon, MD; Guillaume Thiery, MD; Magali Ciroldi, MD; Sandra de Miranda, MD; Lionel Galicier, MD; Emmanuel Raffoux, MD; Jean-Roger Le Gall, MD; Benoît Schlemmer, MD; Élie Azoulay, MD, PhD

(Crit Care Med 2005; 33:2488–2493)

REVIEW

Urgent chemotherapy in hematological patients in the ICU

Ine Moors[a], Frédéric Pène[b], Étienne Lengline[c], and Dominique Benoit[d]

Purpose of review
Over the past decades, survival of critically ill hematological patients has dramatically improved, and these patients are more frequently referred to the ICU for intensive treatment, including a rising need for administering anticancer-therapy in this setting.

Curr Opin Crit Care 2015, 21:559–568

Table 1. Outcome of cancer patients receiving chemotherapy in the intensive care unit

		Design	Number of patients	Age (years)	Prognostic factors	ICU mortality	Hospital mortality	30-day mortality	180-day mortality	1-year mortality
Darmon *et al.* [4▪]	1997–2003	Prospective	80 (HM)	47 (median)	30-day mortality:	36%	41%	40%	51%	NA
			12 (ST)		Vasopressor therapy					
			8 (miscellaneous)		Mechanical ventilation					
					Hepatic failure					
Benoit *et al.* [3]	1997–2005	Retrospective	37 (HM)	46 (mean)	Hospital mortality:	32%	43%	NA	67%	NA
					Mechanical ventilation (univariate)					
Song *et al.* [5]	2002–2008	Retrospective	49 (HM) 13 (ST)	50 (median)	ICU mortality:	40%	NA	50%	77%	NA
					Mechanical ventilation (multivariate)					
					SOFA $\geq$ 10 at start of CT (multivariate)					
					Significant lower ICU mortality in case of first presentation (univariate)					
Wohlfarth *et al.* [6]	2006–2013	Retrospective	49 (HM) 7 (ST)	47 (median)	Hospital mortality:	25%	41%	NA	64%	68%
					CCI					
					Age					
					SAPS II					
					Vasopressor therapy					
					RRT					
					Severe thrombocytopenia and need for platelet transfusion					
					Septic shock					
					Clinical TLS					

Urgent Chemotherapy for Life-Threatening Complications Related to Solid Neoplasms

Yoann Zerbib, MD[1]; Antoine Rabbat, MD[2]; Muriel Fartoukh, MD[3]; Naïke Bigé, MD[4]; Claire Andréjak, MD[5]; Julien Mayaux, MD[6]; Nicolas De Prost, MD[7]; Benoît Misset, MD[8]; Virginie Lemiale, MD[9]; Fabrice Bruneel, MD[10]; Julien Maizel, MD[11]; Sylvie Ricome, MD[12]; Frédéric Jacobs, MD[13]; Caroline Bornstain, MD[14]; Hervé Dupont, MD[15]; François Baudin, MD[16]; Elie Azoulay, MD[9]; Frédéric Pène, MD[1]; on behalf of the Groupe de Recherche sur la Réanimation Respiratoire en Onco-Hématologie (GRRR-OH)

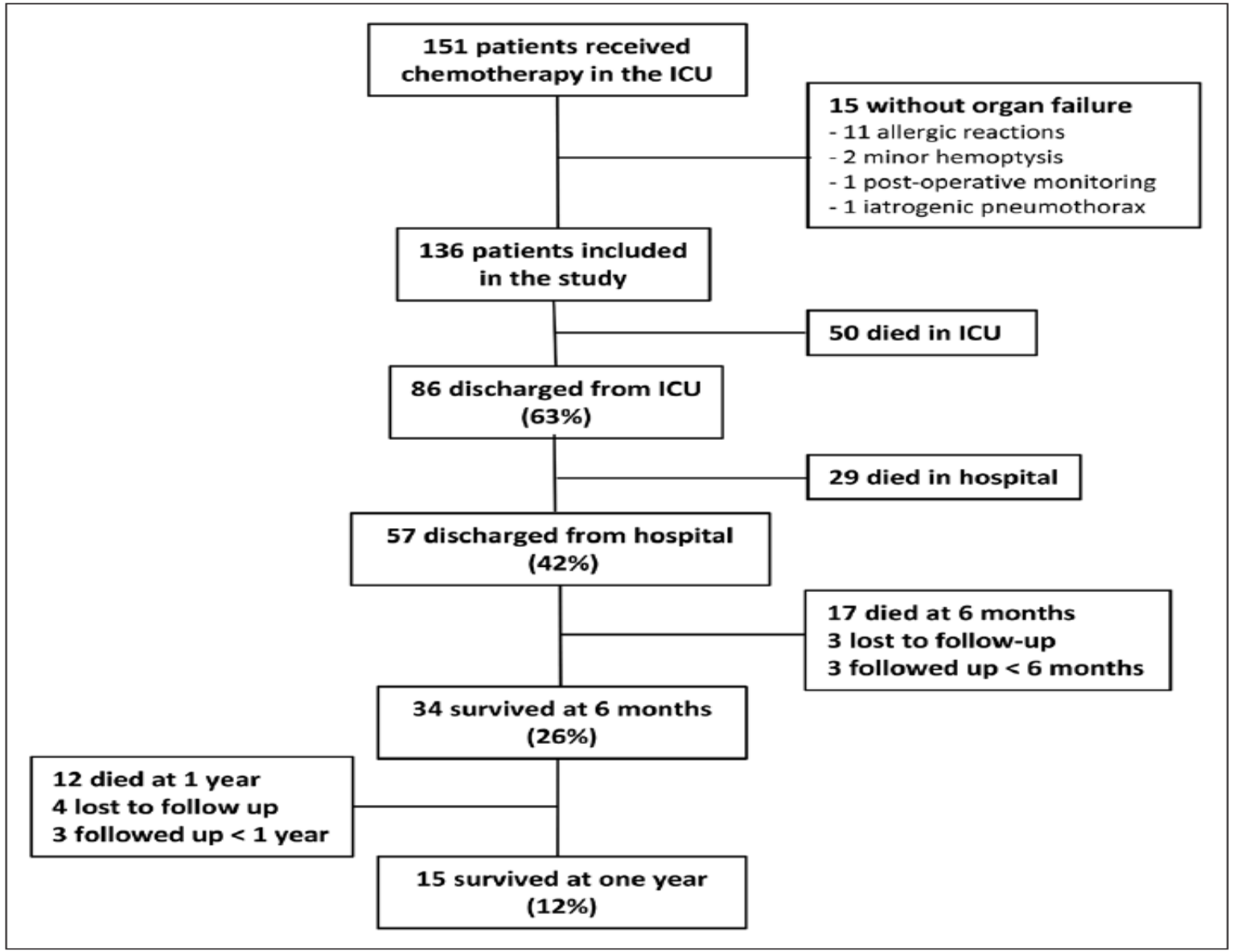


Figure 1. Flowchart of the study.

2001-2015

TABLE 3. Characteristics of the 15 One-Year Survivors

Case No.	Age (Yr)	Gender	Type of Cancer	First Presentation	Metastatic	Reason for ICU Admission
1	54	Female	Adrenocortical carcinoma	Yes	Yes	Acute respiratory failure
2	57	Male	SCLC	No	Yes	Acute respiratory failure
3	32	Male	Gastric adenocarcinoma	No	Yes	Thrombotic microangiopathy
4	65	Female	SCLC	No	No	Acute respiratory failure
5	53	Male	SCLC	No	No	Opsonus myoclonus syndrome
6	50	Female	Lung adenocarcinoma	No	No	Acute respiratory failure
7	36	Female	Thymic neuroendocrine carcinoma	No	No	Acute respiratory failure
8	55	Male	SCLC	No	Yes	Acute respiratory failure
9	31	Male	Lung adenocarcinoma	No	No	Acute respiratory failure
10	34	Female	Breast carcinoma	No	Yes	Severe sepsis
11	20	Male	Mediastinal choriocarcinoma	No	Yes	Acute respiratory failure
12	33	Female	Sarcoma	No	Yes	Acute respiratory failure
13	22	Male	Germinal non-seminomatous	No	No	Acute respiratory failure
14	68	Female	SCLC	No	No	Acute respiratory failure
15	65	Female	Breast carcinoma	Yes	Yes	Acute respiratory failure

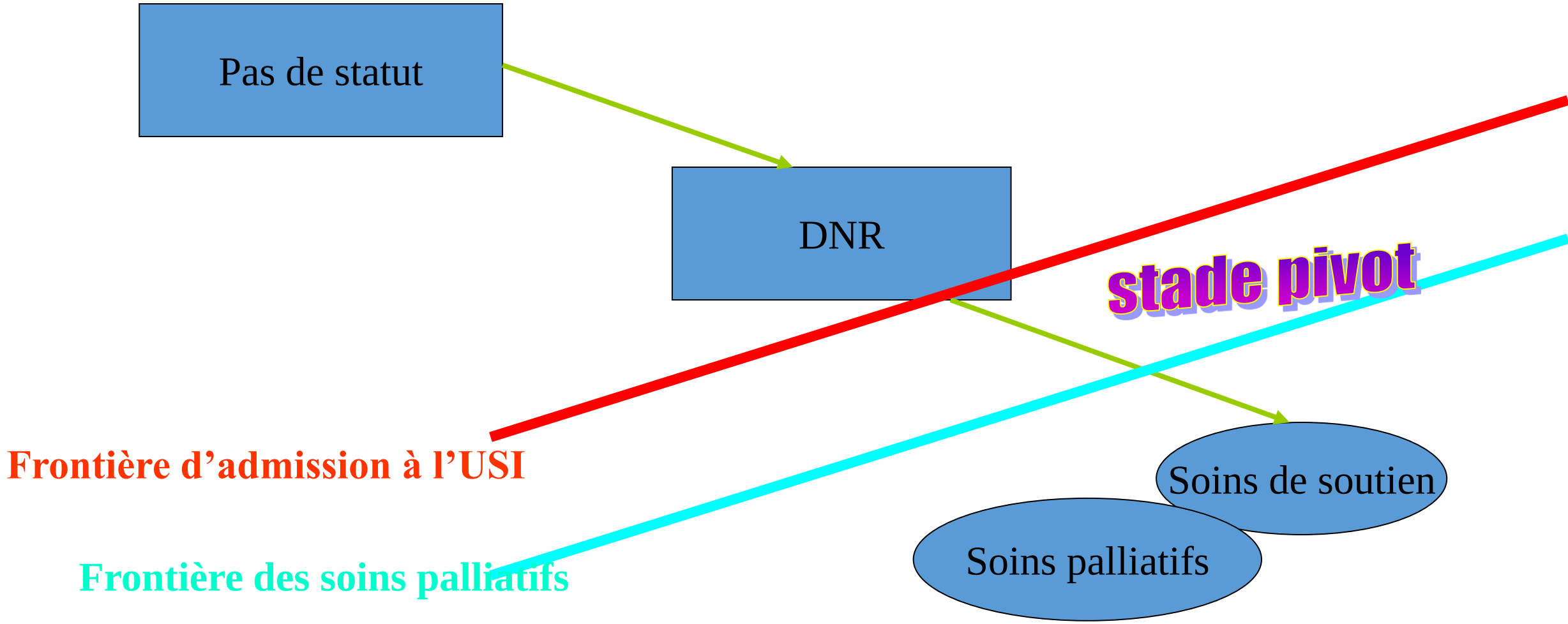
IMV = invasive mechanical ventilation, NIV = noninvasive ventilation, SCLC = small cell lung cancer.

Chemotherapy	Instrumental Procedures	Admission Sequential Organ Failure Assessement Score	Life-Supporting Therapy
Carboplatine, etoposide	0	4	0
Carboplatine, etoposide	0	8	IMV
5-Fluorouracil, oxaliplatine	0	3	0
Carboplatine, etoposide	0	3	IMV
Cisplatine, etoposide	0	3	IMV
Cyclophosphamide, cisplatine, etoposide	0	3	0
Paclitaxel, carboplatine	0	1	0
Cisplatine, etoposide, ifosfamide	Arterial embolization	3	IMV
Carboplatine, paclitaxel, bevacizumab	0	3	NIV
Doxorubicine, cyclophosphamide	0	1	0
Cisplatine, etoposide	Pleural draining	1	0
Doxorubicine, ifosfamide	Pleural draining	1	IMV
Cisplatine, etoposide, bleomycine	Pleural draining	1	0
Carboplatine, etoposide	0	1	NIV
Paclitaxel	Pleural draining	2	0

Cas des patients limites sans projet thérapeutique

- Stades pivots
- Discussion multidisciplinaire nécessaire

Le problème pratique = le stade pivot



La réanimation d'attente

Intensive Care Med (2006) 32:1560–1568
DOI 10.1007/s00134-006-0286-3

ORIGINAL

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Changes in severity and organ failure scores as prognostic factors in onco-hematological malignancy patients admitted to the ICU

Une application pratique pour les scores de gravité :

- Les patients qui avaient amélioré leur score à 72 heures voyaient leur chance de survivre augmenter, au contraire de ceux dont le score s'aggravait.
- La réanimation d'attente s'adresse au patient à qui on désire donner une chance mais sans s'acharner s'il n'y a pas d'amélioration après 72 heures, celle étant évaluée par des scores de gravité comme l'IGS II, le SOFA, l'ODIN, le LODS

HHS Public Access
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JAMA Oncol. 2016 January 1; 2(1): 76–83. doi:10.1001/jamaoncol.2015.3336.

Time-Limited Trials of Intensive Care for Critically Ill Patients With Cancer:

How Long Is Long Enough?

Mark G. Shrime, MD, MPH, PhD, **Bart S. Ferket, MD, PhD**, **Daniel J. Scott, PhD**, **Joon Lee, PhD**, **Diana Barragan-Bradford, MD**, **Tom Pollard, PhD**, **Yaseen M. Arabi, MD**, **Hasan M. Al-Dorzi, MD**, **Rebecca M. Baron, MD**, **M. G. Myriam Hunink, MD, PhD**, **Leo A. Celi, MD, MS, MPH**, and **Peggy S. Lai, MD, MPH**

Trial durations of 1 to 4 days appeared sufficient in patients with poor-prognosis solid tumors, whereas patients with hematologic malignant neoplasms or with less severe illness required trials of up to 2 weeks.

In patients with poor-prognosis solid tumors, short, time-limited trials of ICU treatment may be sufficient, but in all other critically ill patients with cancer, longer ICU trials are necessary to achieve optimal survival benefit.

Les traitements expérimentaux

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JOURNAL OF CLINICAL ONCOLOGY

ORIGINAL REPORT

Outcome Analyses After the First Admission to an Intensive Care Unit in Patients With Advanced Cancer Referred to a Phase I Clinical Trials Program

Siqing Fu, David S. Hong, Aung Naing, Jennifer Wheler, Gerald Falchook, Sijin Wen, Adrienne Howard, Diane Barber, Joseph Nates, Kristen Price, and Razelle Kurzrock

Table 1. Patient Demographics and Clinical Characteristics

Demographic or Clinical Characteristic	No. of Patients (N = 212)	%
Age, years		
Median	52	
Range	18-84	
Sex		
Women	102	48
Men	110	52
Race distribution		
White	148	70
African American	35	16
Hispanic	21	10
Others	8	4
APACHE II score at the initial ICU admission		
Median	18	
Range	2-43	
Best ECOG performance status before the initial ICU admission		
0 or 1	137	64
2	63	30
≥ 3	12	6
Received status of phase I therapy before the initial ICU admission	166	78
Presence of advance directives before the initial ICU admission	87	41
Presence of out-of-hospital orders for DNR	8	4
Presence of inpatient orders for DNR at the initial ICU admission	19	9
Interventional modality		
Surgical intervention	51	24
Nonsurgical intervention	161	76
Noninvasive critical care	114	
Mechanical ventilation only	40	
Cardiopulmonary resuscitation	7	

Abbreviations: APACHE II , Acute Physiology and Chronic Health Evaluation II; DNR, do not resuscitate; ECOG, Eastern Cooperative Oncology Group; ICU, intensive care unit.

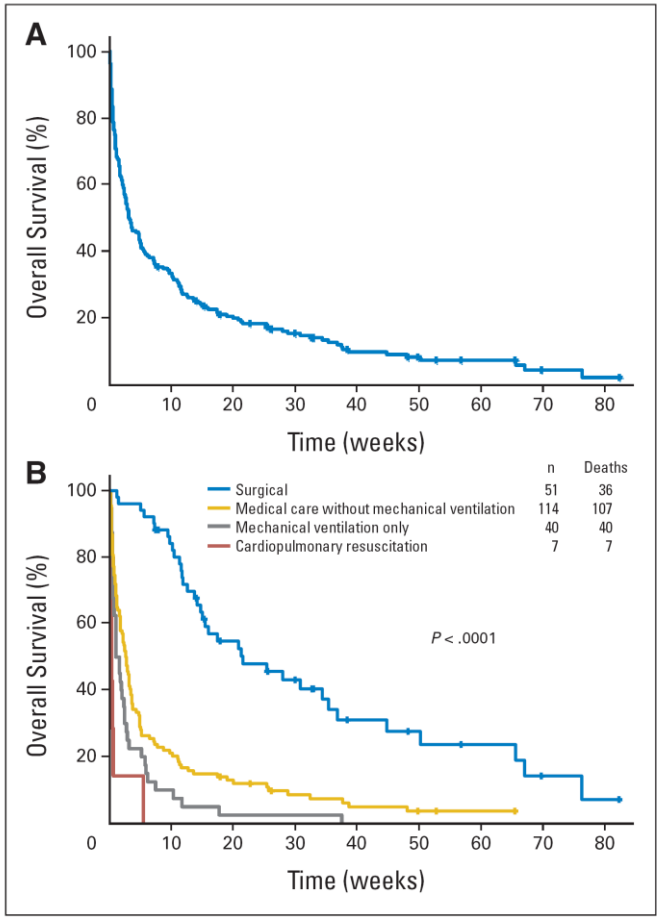

Fig 1. Kaplan-Meier curves indicating survival in patients with advanced cancer referred to phase I care from the initial admission for critical care to death. (A) Overall survival for 212 patients from the first admission to an intensive care unit to death. A total of 190 deaths were observed with median survival of 3.2 weeks. 95% CI for the median survival ranged from 2.5 to 4.9 weeks. (B) Kaplan-Meier survival curve showing a significant difference among four groups of patients with phase I cancer ($P < .0001$, log-rank test): patients admitted for postsurgical intervention with median survival of 21.5 weeks; patients admitted for medical care without mechanical ventilation with median survival of 2.5 weeks; patients admitted for mechanical ventilation without cardiopulmonary resuscitation with median survival of 6 days; and patients admitted for cardiopulmonary resuscitation with median survival of 1 day. The 12-week survival rates were 72% (surgical), 17% (medical care without mechanical ventilation), 5% (mechanical ventilation only), and 0% (cardiopulmonary resuscitation).

Table 4. Multivariate Analyses of Overall Survival by the Cox Regression Model

Potential Risk Factor for Worse Survival	Effect	SE	Hazard Ratio	*P*
Men	0.031	0.152	1.031	.840
Nonwhite	0.308	0.166	1.361	.064
Nonsurgical intervention	1.254	0.222	3.504	< .0001
Best ECOG performance (> 2)	0.585	0.320	1.795	.067
APACHE II score (≥ 18)	0.411	0.160	1.508	.010
Hypoalbuminemia	0.408	0.187	1.504	.029
Hyperbilirubinemia	0.075	0.205	1.078	.710
High lactate dehydrogenase	0.151	0.181	1.163	.400
Thrombocytosis	0.199	0.289	1.221	.490
Thromboembolism	0.225	0.163	1.252	.170
Intermediate- or high-grade histology	0.288	0.204	1.334	.160
Brain metastasis	0.131	0.193	1.140	.500
Liver metastasis	−0.119	0.162	0.888	.460
Phase I therapy not received	0.268	0.184	1.308	.140
Code status (full code)	0.434	0.277	1.543	.120

Abbreviations: APACHE II, Acute Physiology and Chronic Health Evaluation II; ECOG, Eastern Cooperative Oncology Group.

Cas des patients avec limite thérapeutique avant l'admission

Le problème du statut des patients

- **DNR**
- **NTBR (DNI …)**
- **NT**

Définition du code NTBR :

Le code **NTBR** signifie **« Not To Be Resuscitated »**. Il correspond au code DNR, signifiant « Do Not Resuscitate » plus largement utilisé dans la littérature anglo-saxonne.

Il signifie qu'aucune manœuvre ne sera tentée **en cas d'arrêt cardio-respiratoire** : **pas de massage cardiaque ni d'intubation endo-trachéale**. Il est la traduction d'une décision partagée entre le médecin et le patient, visant à éviter qu'il ne traverse des traitements inutilement lourds et n'ayant aucun impact significatif en termes de durée ou de qualité de vie.

L'application de ce code doit être décidée par un médecin senior , et dans tous les cas où c'est possible, en concertation avec le médecin traitant et les médecins cliniciens de l'Institut Bordet principalement impliqués dans la prise en charge. Elle sera notifiée dans le dossier médical électronique par un médecin.

Le code NTBR n'exclut pas les techniques de support vital y compris la ventilation invasive, en cas de choc septique ou hémodynamique, d'hypotension, d'arythmie cardiaque, d'embolie pulmonaire, d'épanchement pleural ou péricardique, etc.

Un patient « NTBR » peut être admis dans une unité de soins intensifs selon les circonstances.

Il faut savoir gérer cette phase

Le mieux = prise en charge intégrant
oncologie et réanimation

Support Care Cancer (2006) 14: 167–171
DOI 10.1007/s00520-005-0845-0

ORIGINAL ARTICLE

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Non-invasive ventilation for cancer patients with life-support techniques limitation

Noninvasive Ventilation in Patients With Do-Not-Intubate and Comfort-Measures-Only Orders: A Systematic Review and Meta-Analysis*

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Objectives: To assess the effectiveness of noninvasive ventilation in patients with acute respiratory failure and do-not-intubate or comfort-measures-only orders.

Data Sources: MEDLINE, EMBASE, CINAHL, Scopus, and Web of Science from inception to January 1, 2017.

Study Selection: Studies of all design types that enrolled patients in the ICU or hospital ward who received noninvasive ventilation and had preset do-not-intubate or comfort-measures-only orders.

Data Extraction: Data abstraction followed Meta-analysis of Observational Studies in Epidemiology guidelines. Data quality was assessed using a modified Newcastle-Ottawa Scale.

Data Synthesis: Twenty-seven studies evaluating 2,020 patients with do-not-intubate orders and three studies evaluating 200 patients with comfort-measures-only orders were included. In patients with do-not-intubate orders, the pooled survival was 56% (95% CI, 49–64%) at hospital discharge and 32% (95% CI, 21–45%) at 1 year. Hospital survival was 68% for chronic obstructive pulmonary disease, 68% for pulmonary edema, 41% for pneumonia, and 37% for patients with malignancy. Survival was comparable for patients treated in a hospital ward versus an ICU. Quality of life of survivors was not reduced compared with baseline, although few studies evaluated this. No studies evaluated quality of dying in nonsurvivors. In patients with comfort-measures-only orders, a single study showed that noninvasive ventilation was associated with mild reductions in dyspnea and opioid requirements.

Conclusions: A large proportion of patients with do-not-intubate orders who received noninvasive ventilation survived to hospital discharge and at 1 year, with limited data showing no decrease in quality of life in survivors. Provision of noninvasive ventilation in a well-equipped hospital ward may be a viable alternative to the ICU for selected patients. Crucial questions regarding quality of life in survivors, quality of death in nonsurvivors, and the impact of noninvasive ventilation in patients with comfort-measures-only orders remain largely unanswered. (*Crit Care Med* 2018; 46:1209–1216)

Key Words: do-not-intubate; noninvasive ventilation; palliative care; quality of life

*See also p. 1367.

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Cas des patients avec limite thérapeutique décidée après l'admission

Le statut en réanimation

Palliative Care & Medicine

Meert et al., J Palliative Care Med 2012, 2:3
http://dx.doi.org/10.4172/2165-7386.1000107

Research Article Open Access

Causes of Death and Incidence of Life-support Techniques Limitations in Oncological Patients Dying in the ICU: A Retrospective Study

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Sex (male/female)	38/33
Median age (min-max)	57 years (19-85)
Median SAPS II (min-max)	47 (24-98)
Type of cancer	46 solid tumour (64.8%) – 19 lung cancers (18 NSCLC + 1 SCLC) – 6 breast cancers – 6 digestive tumours – 5 gynaecologic cancers – 4 urologic cancer – 4 head and neck cancers – 1 melanoma – 1 sarcoma 25 haematological tumours (35.2%) – 14 acute leukemia – 7 lymphoma – 3 chronic leukemia – 1 myelodysplastic syndrome
Cancer phase	Diagnostic: 3 (4.2%) Curative: 8 (11.3%) Control: 52 (73.2%) Pivotal: 8 (11.3%)

NSCLC= non small cell lung cancer; SCLC=small cell lung cancer

Table 1: Patients characteristics.

Total number of admission	**71**	
Respiratory	**26 (36.6%)**	**21 infectious pneumonia** 1 alveolar haemorrhage 1 haemothorax 1 pneumothorax 1 bronchospasme 1 tumoral obstruction
Haemodynamic	13 (18.3%)	**7 septic shock** 3 hypovolemic shock **2 severe sepsis** 1 obstructive shock
Renal	8 (11.3%)	8 acute renal failure
Heart	6 (8.4%)	3 arrhythmia 2 pericardial effusion 1 syncope
Neurological	6 (8.4%)	**2 meningitis** 1 coma 1 status epilepticus 1 stroke 1 cerebral haemorrhage
Digestive	6 (8.4%)	3 hepatic failure **2 peritonitis** 1 bowel perforation
Metabolic	5 (7%)	3 tumoural lysis syndrome 1 hyperkaliemia 1 hypokaliemia
Haematological	1 (1.4%)	1 complicated disseminated intravascular coagulation

Infectious causes are in bold

Table 2: Patients admission causes.

Statut

- A l'admission :
  - Non: 59 patients (83,1%)
  - Oui: 12 (16,9%) par progression du cancer
- Au cours du séjour à l'USI:
  - Oui : 42
    - 9 au cours des 24 1ères heures (6 par progression du cancer)
    - 33 patients plus tard (26 par évolution péjorative de la complication aiguë)

Patients admis sans statut

- 17 : morts sans statut
  - 76% hémopathie maligne et 24% tumeur solide ($p<0,001$).
  - Tous morts sous ventilation mécanique invasive
    - 47% : pas de RCP
- 23 : statut avant intubation
- 19 : statut sous VMI
  - 79% par mauvaise évolution de la complication aiguë

En conclusion

Évaluer l'état d'avancement du cancer avant de décider de la réanimation.

Le stade fonctionnel du cancer (phase selon le projet thérapeutique) :

- Stade I: diagnostic
- Stade II: traitement à visée curative
- Stade III: traitement à visée de contrôle
- Stade IV: stade pivot
- Stade V: soins palliatifs

Variable	*Mortalité hospitalière*
APACHE II	< 0,001
IGS II	< 0,001
Extension du cancer	NS
Phase du cancer	NS

Avec l'intention de ne pas proposer la réanimation en cas de d'absence de projet thérapeutique efficace

Med J Aust 153: 225; 1990

Les situations limites

- La réanimation d'attente
- La possibilité d'un nouveau traitement efficace

Les nouvelles immunothérapies

Published OnlineFirst February 1, 2019; DOI: 10.1158/1078-0432.CCR-18-0793

Clinical Trials: Immunotherapy

Clinical Cancer Research

Long-Term Survival in Patients Responding to Anti–PD-1/PD-L1 Therapy and Disease Outcome upon Treatment Discontinuation

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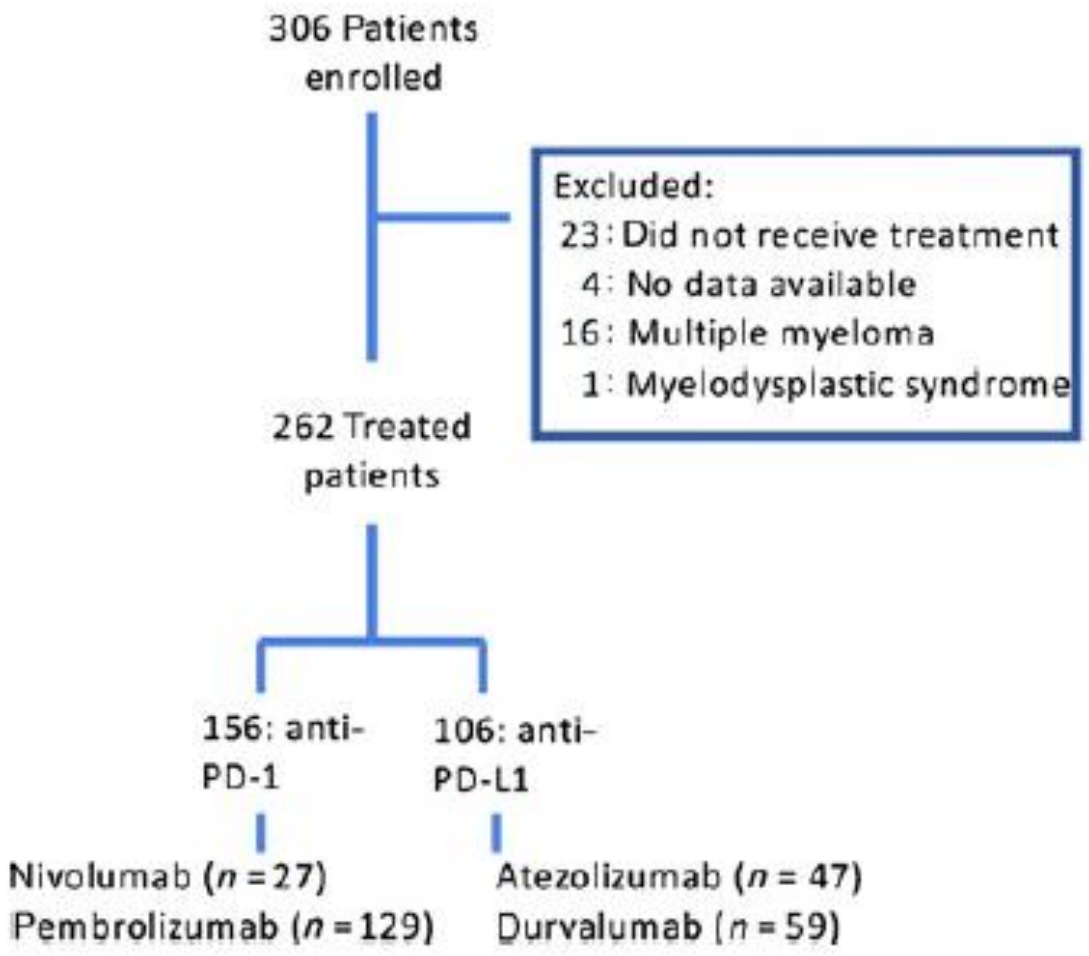

Figure 1.
Population description flow chart.

Solid tumor type	CRC ADK MSI	8 (3)
	CRC ADK MSS	3 (1.1)
	endometrial ADK MSI	1 (0.4)
	endometrial ADK MSS	3 (1)
	gastric ADK	4 (1.5)
	ovarian ADK MSI	1 (0.4)
	ovarian ADK MSS	8 (3)
	prostatic ADK	7 (2.7)
	urothelial carcinoma	25 (9.5)
	small cell pancreatic cancer	1 (0.4)
	cervix carcinoma	10 (4)
	HCC	8 (3)
	glioblastoma	5 (1.9)
	cholangiocarcinoma	2 (0.8)
	melanoma	76 (29)
	choroidal melanoma	6 (2.3)
	pleural mesothelioma	1 (0.4)
	Merkel	3 (1)
	NSCLC	25 (9.5)
	renal carcinoma	13 (5)
	SCLC	3 (1)
	breast cancer	8 (3)
	head and neck	21 (8)
	Ewing sarcoma	1 (0.4)
Hematological malignancy	HL	9 (3.4)
	NHL	10 (4)
Progressive disease	115 (44)	
Stable disease	66 (25)	
	Treatment discontinuation	2 (0.8): protocol

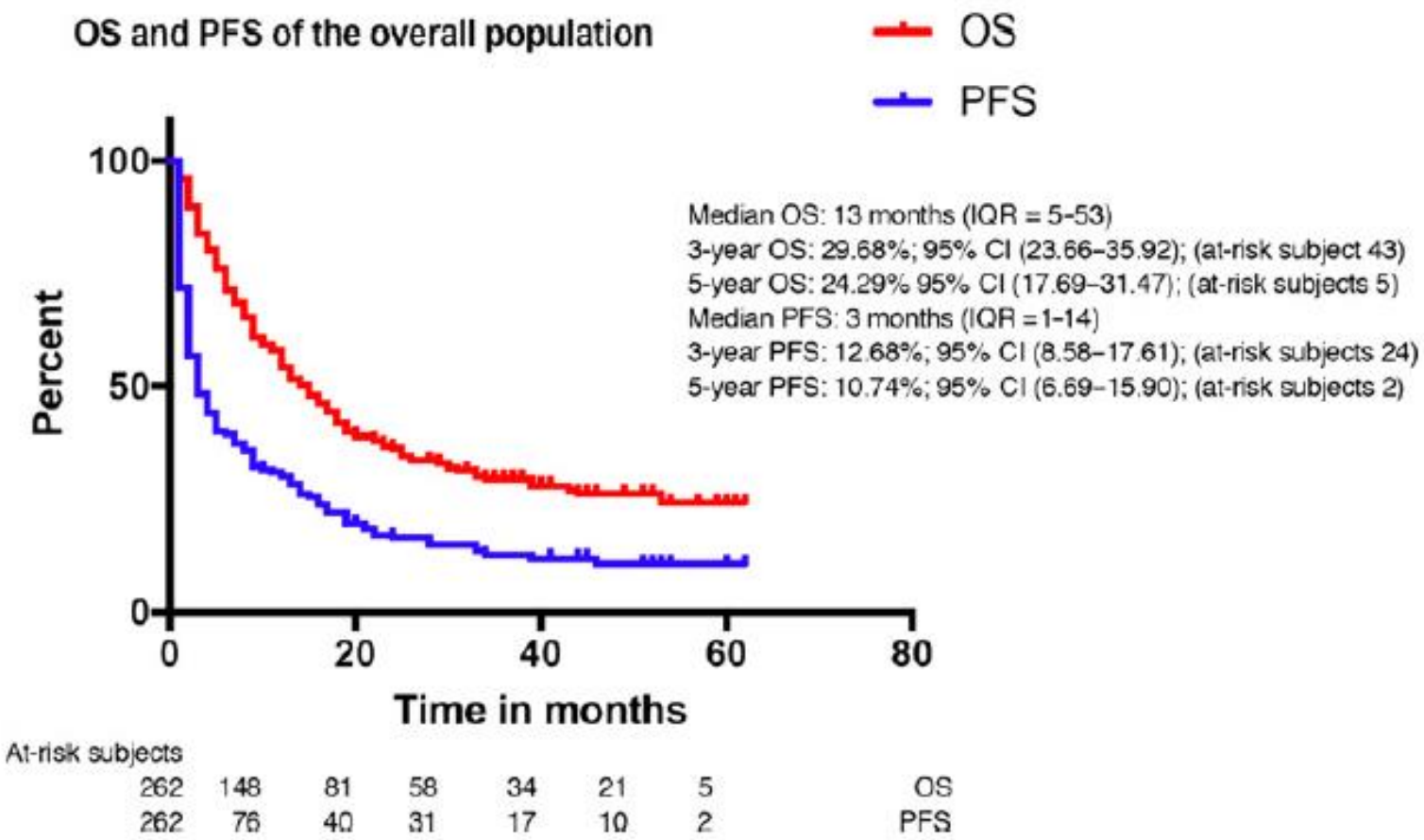

Figure 4.
OS and PFS of the overall population.

L'expertise en soins intensifs oncologiques

- Double formation
- Equipe multidisciplinaire (centre expert)