Le transfert en réanimation

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Déclaration

- Aucun conflit n’est à rapporter.

Les indications

- Les admissions programmées
  - Contexte chirurgical
  - Contexte médical
- Les admissions urgentes
  - Internes (transfert)
  - Externes (via les urgences)

Contacter le réanimateur pour admettre le patient en soins intensifs vu l'urgence peut être problématique

- Souvent, il va falloir argumenter
- Rapport souvent biaisé entre l'intensiviste et le cancéreux

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.

Table 1. *Estimated Prognoses for Patients in the Four Diagnostic Groups Based on a Review of the Literature*

Disease	Reference	Estimated Survival, %	
		At 1 year	At 5 years
The acquired immunodeficiency syndrome	22-25	40 to 50	5 to 10
Unresectable non-small-cell lung cancer	26,27	25 to 35	3 to 5
Cirrhosis (history of esophageal varices)	28	30 to 40	5 to 10
Congestive heart failure (severe, with history of coronary disease)	29-33	50 to 60	5 to 10

Le pronostic

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
- Stade IV: stade pivot
- Stade V: soins palliatifs

Med J Aust. 1990;153:225-229

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.

L'IGS II

SCORE I.G.S. II

VARIABLE/POINTS	26	13	12	11	9	7	6	5	4	3	2	0	1	2	3	4	6	7	8	9	10	12	15	16	17	18
Age												< 40						40-59				60-69	70-74	75-79		≥80
F.C. (Batt/min-1)				< 40							40-69	70-119				120-59		≥160								
T.A. systolique (mmHg)		< 70						70-99				100-199		≥ 200												
Température (C°)												< 39°			≥ 39°											
PaO2/FIO2 (mmHg) seulement si V.M. ou CPAP				< 100	100-199		≥ 200																			
Diurèse (l/jour)			< 0.500						0.500-0.999			≥ 1000														
Urée (mmol/l) (g/l)												< 10.0 < 0.60					10.0-29.9 0.60-1.79				≥ 30.0 ≥ 1.80					
Globules blancs			< 1.0									1.0-19.9			≥ 20.0											
Kaliémie (mEq/l)										< 3.0		3.0-4.9			≥ 5.0											
Natrémie (mEq/l)								< 125				125-144	≥ 145													
HCO3- (mEq/l)							< 15			15-19		≥ 20														
Bilirubine (µmol/l) si jaunisse (mg/l)												< 68.4 < 40.0				68.4-102.5 40.0-59.9				≥ 102.6 ≥ 60.0						
Score de Glasgow (Pts)	< 6	6 – 8				9 – 10		11-13				14 – 15														
Maladies chroniques																				cancer méta.	Mal. hém.				SIDA	
Type d'admission												Chir. prog.					Méd.		Chir. Urg.							
Somme des points																										

Total IGS II	Pts

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

T. Berghmans
M. Paesmans
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 oncologie thoracique

Auteur (année)	N de patients Type de patients	Mortalité à l'USI	Mortalité hospitalière	Mortalité à long terme
Ewer (1986) (21)	46 65% CBNPC	85%	91%	98%
Boussat (2000) (24)	57 75% CBNPC 81% stade III-IV	66%	75%	
Jennens (2002) (17)	20 CBPC 60% étendu			85%
Thyrault (2002) (27)	67 71,6% CBNPC 66,7% stade IV	46%		
Lin (2004) (19)	81 77% CBNPC 96% stade III-IV	73%	85%	
Reichner (2006) (16)	47 83% CBNPC 59% stade IIIB-IV	43%	60%	
Soares (2007) (15)	143 83% CBNPC, 59% stade IIIB-IV	42%	59%	67%
Sculier (2007) (34)	302	13%		
Adam (2008) (28)	139 69% CBNPC	22%	40%	48%
Sharma (2008) (8)	9942 >66ans stade IIIB ou IV		41,3%	
Roques (2009) (14)	105 83% CBNPC 83% stade IIIB-IV	43%	54%	73%
Toffart (2011) (23)	103 68% CBNPC 75% stade IIIB-IV	31%	48%	63% à 3 mois 88% à 1 an
Andréjak (2011) (13)	76 64% CBNPC 64% Stade IIIB-IV	47,4%	65,6%	
Bonomi (2012) (18)	1134 >65 ans CBNPC stade IIIB et IV		33%	71% à 3 mois 90% à 1 an
Chou (2012) (22)	70 stade III et IV		58,6%	
Slatore (2012) (20)	49373 80,3% CBNPC, 45,7% stade IV		24%	65% à 6 mois

Auteur (année)	Mortalité à l'USI		Mortalité hospitalière		Mortalité à long terme	
	Analyse univariée	Analyse multivariée	Analyse univariée	Analyse multivariée	Analyse univariée	Analyse multivariée
Ewer (1986) (21)	Durée de la ventilation mécanique > 6 jours					
Boussat (2000) (24)	Histologie, stade, **PS, maladie pulmonaire aigue, VMI,** défaillance d'organes, **SAPSII**	**PS, maladie pulmonaire aigue,**	Histologie, **stade**, **PS,** maladie pulmonaire aigue, VMI, défaillance d'organes, SAPSII	**PS, maladie pulmonaire aigue,**	Stade	
Thyrault (2002) (27)	**Age,** sexe, histologie, métastases, durée évolution du cancer, complication directe du cancer, **ODIN, IGSII, insuffisance respiratoire aigue, VMI, durée du séjour en réanimation**					
Reichner (2006) (16)	**Score SOFA, VMI, CBNPC stade IV**					
Soares (2007) (15)			Age, sexe, histologie, **extension du cancer, status du cancer, PS, obstruction voie aérienne par cancer**, perte de poids, **comorbidités,** BPCO, **infection**, **VMI, vasopresseur, n organes défaillants**	Age, extension du cancer, PS infection, VMI vasopresseur, **status du cancer, obstruction voie aérienne par cancer comorbidités, n organes défaillants**		

Adam (2008) (28)	Age, sexe, **ethnicité, tabagisme, histologie,** stade, traitement anti-cancéreux,**sepsis SAPSIII, Apache III, vasopresseurs, VMI, lactate,** albumine**, calcium,** sodium, créatinine, bilirubine, hématocrite, plaquettes**, bactériémie**	**Vasopresseurs OR 8.7 (2.8–27, p=0.0001) et défaillance d'organes>2 (OR 40.8 5.1–328.3 p= ,0.0001)**			
Roques (2009) (14)			Age, **PS,** BPCO, histologie, nouveau cancer, stade, métastase, obstruction voie aérienne, **insuffisance respiratoire aigue,** progression cancer, **hémoptysies,** admission cardiovasculaire, neurologique, **sepsis, SAPS II, SOFA, VM, vasopresseurs**	**PS, insuffisance respiratoire aigue,** stade, hémoptysies, sepsis, SAPS II, SOFA, VM, vasopresseurs	Age, PS, BPCO, histologie, nouveau cancer, stade, métastase, obstruction voie aérienne, insuffisance respiratoire aigue, **progression cancer,** hémoptysies, admission cardiovasculaire, neurologique, sepsis, SAPS II, **SOFA, VM, vasopresseurs**
Toffart (2011) (23)					Age, sexe, **PS>2,** status du cancer, **métastases**, durée depuis le diagnostic du cancer, chirurgie du cancer, insuffisance respiratoire, choc, **VMI dans les 72h de l'admission**, VNI dans les 72h de la l'admission **vasopresseurs dans les 72h de l'admission, SAPS II, LOD**

Andréjak (2011) (13)	Age, sexe, période avant 2002, comorbidités, stade, histologie**, traitement anticancéreux** , **cause d'admission liée au traitement du cancer, infection,** SAPS II, APACHE II, globules blancs, hémoglobine, **plaquettes,** calcium, **albumine, PaO2/FiO2**, **n organes défaillants, insuffisance respiratoire aigue, VM**, **VMI**, VNI, durée **VM, vasopresseurs,** insuffisance rénale aigue, hémodialyse, chimiothérapie à l'USI, corticothérapie à l'USI	**Vasopresseurs, VM, plaquettes**				
Bonomi (2012) (18)			Age, sexe, ethnie, status marital, stade du cancer, histologie, traitement anticancéreux avant l'admission, revenus, comorbidités, **VMI**	**Admissions liée à un problème respiratoire** (OR: 2.34;95% CI: 1.43–3.82), **sepsis** (OR: 5.06; 95% CI: 3.04–8.43), **insuffisance rénale** (OR: 2.28; 95% CI: 1.02–5.10) **VMI** (OR: 4.69; 95% CI: 3.02–7.30)		

Chou (2012) (22)			Age, sexe, histologie, stade, VEMS, **PS**, comorbidités, VMI, durée USI, APACHE II, **SOFA**, Glasgow, origine sepsis, PaO2/FiO2, choc, SDRA, neutropénie, hémodialyse**, CIVD, albumine**	**SOFA,** albumine, CIVD, PS		
Slatore (2012) (20)			Age, **sexe**, **ethnie,** comorbidités, **histologie**, **stade, durée depuis l'admission**, **n de lits> 450, hôpital universitaire**, **VMI, type d'USI**		**Age, sexe**, **ethnie, comorbidités, histologie**, **stade, durée depuis l'admission**, **n de lits> 450,** hôpital universitaire, **VMI, type d'USI**	
Anisoglou (2013) (35)	Age, sexe, n jours hôpital avant admission à l'USI, **APACHEII, SOFA PS, tabagisme**, traitement anticancéreux, **comorbidité sévère**, **durée de VMI> 24h, vasopresseurs, n organes défaillants,** insuffisance rénale, **sepsis**, hémoglobine, créatinine, **plaquettes,** calcium, albumine**, bactériémie**					

La sélection des patients

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

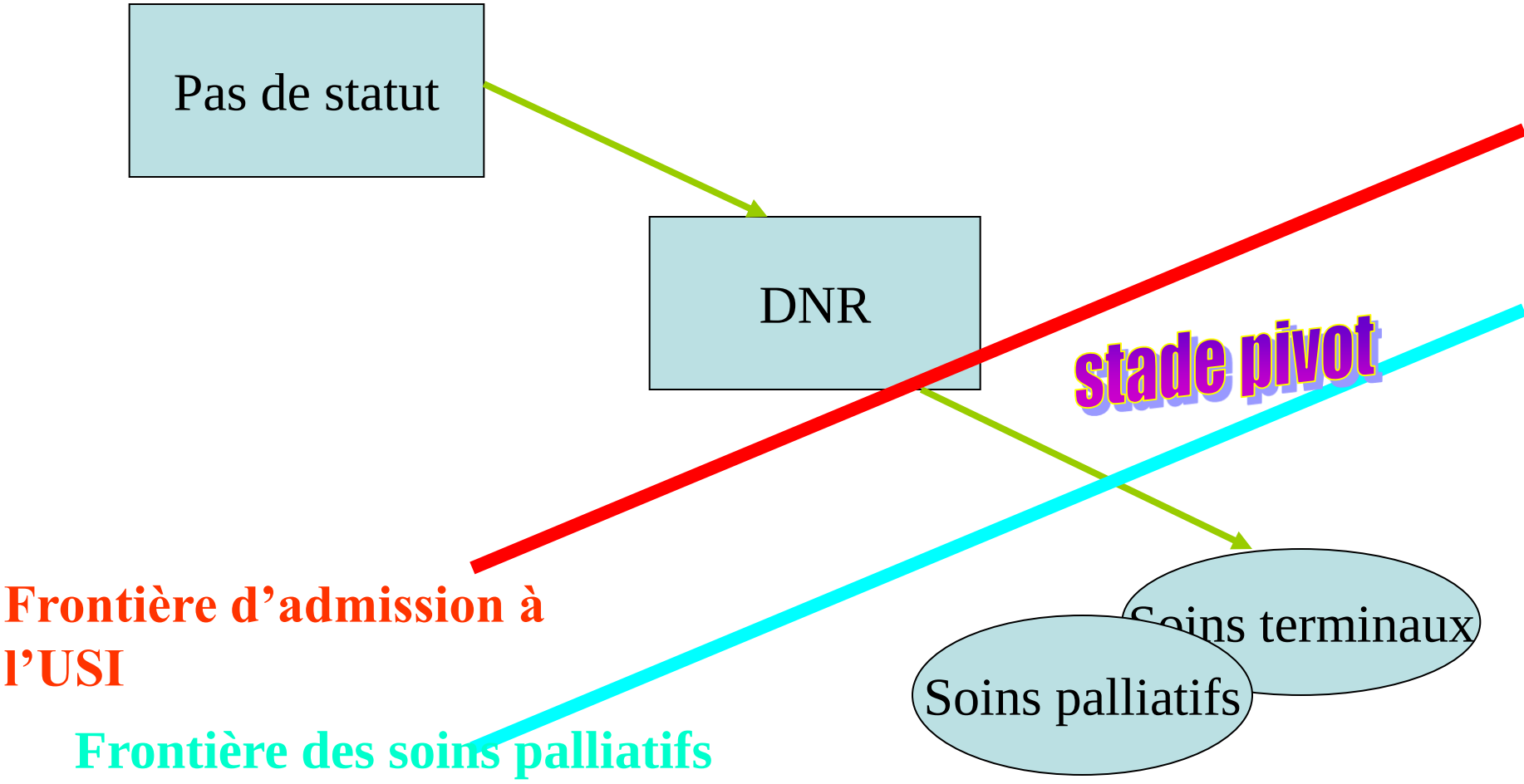
Sélection initiale

ETAPES DE LA MALADIE CANCEREUSE	*INDICATIONS POUR LA REANIMATION*
• diagnostic	• +
• traitement à visée curative	• +
• traitement à visée de rémission	• + (ou réanimation d'attente)
• stade pivot	• - sauf traitements expérimentaux (phase I)
• soins palliatifs	

Le statut des patients

- **DNR**
- **NTBR (DNI …)**
- **NT**

Le problème pratique = le stade pivot



Il faut savoir gérer cette phase

Le mieux = prise en charge intégrant oncologie et réanimation

Le statut en réanimation oncologique

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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Department of Intensive Care and Thoracic Oncology and Jules Bordet Institute, Centre of tumors of the Free University of Brussels (ULB), Brussels, Belgium

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

VOLUME 29 · NUMBER 26 · SEPTEMBER 10 2011

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.

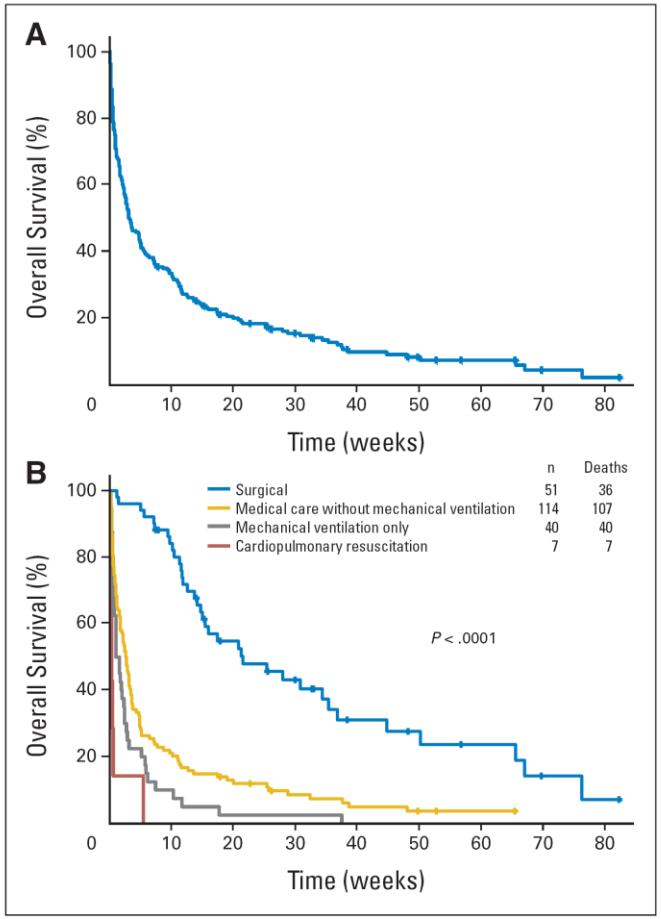

Fig 1. Kaplan-Meier curves indicating survival in patients with advanced cancer referred to phase I care from the initial admission for critical care to death. (A) Overall survival for 212 patients from the first admission to an intensive care unit to death. A total of 190 deaths were observed with median 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.

La réanimation d'attente

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

ORIGINAL

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M.-F. Hellot
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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

Les causes d’admission et les résultats des techniques de réanimation.

Les causes d'admission

Pathologie respiratoire
- Infection pulmonaire
- Syndrome de détresse respiratoire aigue
- Embolie pulmonaire
- Atélectasie
- Epanchements pleuraux
- Hémoptysies
- Exacerbation BPCO
Sepsis/choc
Pathologies cardiovasculaires
Pathologies neurologiques
Troubles ioniques/insuffisance rénale
Pathologies hématologiques

La réanimation cardiorespiratoire

Support Care Cancer (1993) 1:135–138

Original articles

Supportive Care in Cancer

© Springer-Verlag 1993

Cardiopulmonary resuscitation in medical cancer patients: the experience of a medical intensive-care unit of a cancer centre

J. P. Sculier, E. Markiewicz

Unité d'Administration et de Surveillance de Traitements Intensifs, Service de Médecine et Laboratoire d'Investigation Clinique H. J. Tagnon, Institut Bordet, Centre des Tumeurs de l'Université Libre de Bruxelles, 1, Rue Héger-Bordet, B-1000 Brussels, Belgium

Table 1. Results according to patients' clinical characteristics. ICU, Intensive-care unit

Characteristic	Category[a]			
	A	B	C	D
n	30	12	2	5
Age, mean (years)	50	56	57	52
Range	20–77	26–77	54–60	42–63
Sex				
Male	10	6	1	2
Female	20	6	1	3
Type of tumour				
Solid	13	7	2	5
Locoregional	3	2	—	1
Metastatic	10	5	2	4
Haematological	17	5	—	—
Functional stage				
Diagnosis	2	—	—	—
Treatment for cure	14	4	—	—
Treatment for control	11	5	1	5
Candidate for palliative care	3	3	1	—
Cause of admission in ICU				
Cardiac arrest	5	5	2	2
Anticancer treatment	—	—	3	
Medical complications	25	7	—	—
Cause of cardiac arrest				
Drug cardiovascular toxicity	—	2	1	5
Other causes	30	10	1	0

Resuscitation (2006) 71, 152—160

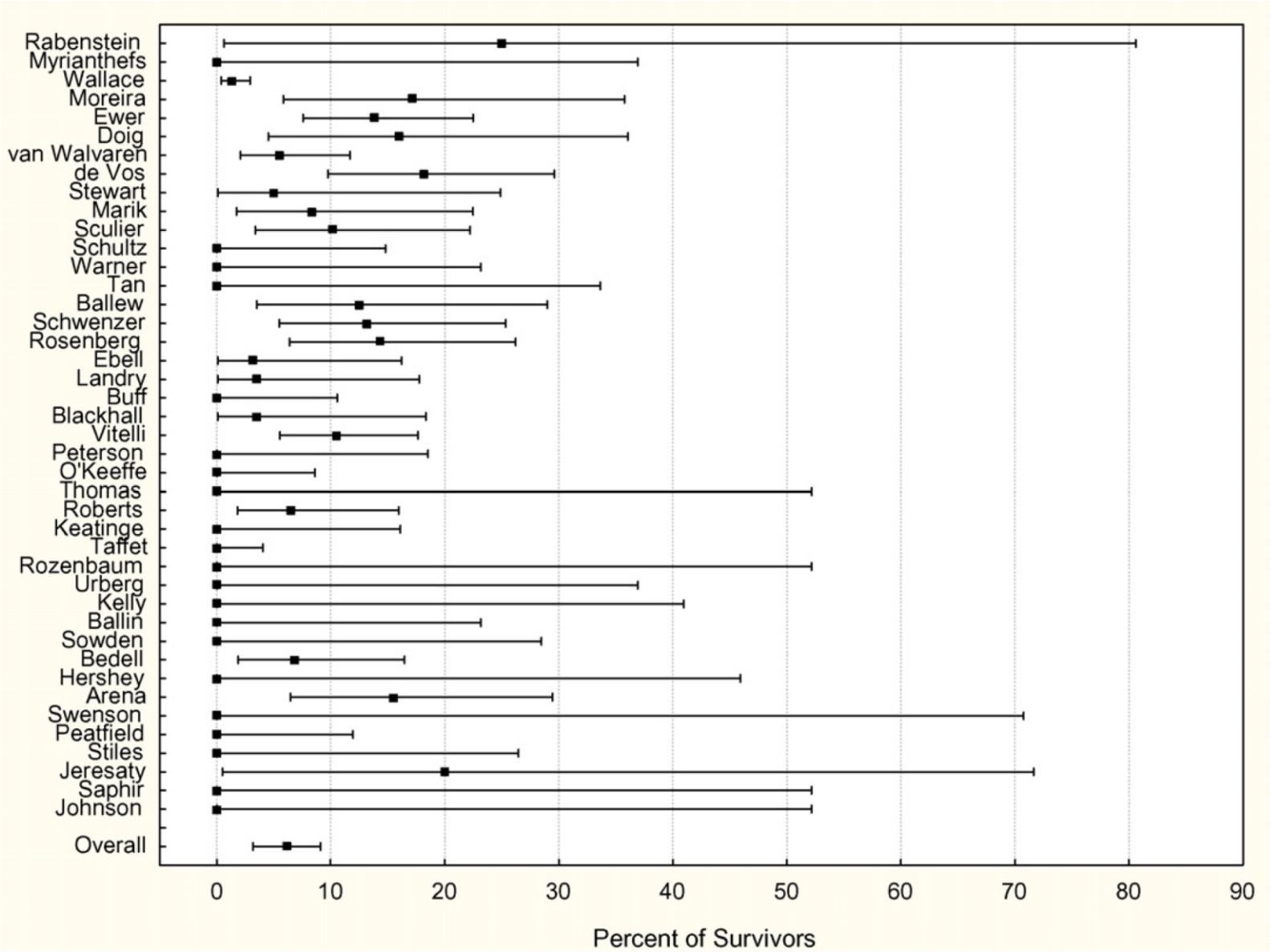
ELSEVIER

www.elsevier.com/locate/resuscitation

CLINICAL PAPER

Survival in cancer patients undergoing in-hospital cardiopulmonary resuscitation: A meta-analysis☆

Gary M. Reisfield[a,*], Susannah Kish Wallace[b,1], Mark F. Munsell[c,2], Fern J. Webb[d,3], Edgar R. Alvarez[e,4], George R. Wilson[e,5]


Rabenstein
Myrianthefs
Wallace
Moreira
Ewer
Doig
van Walvaren
de Vos
Stewart
Marik
Sculier
Schultz
Warner
Tan
Ballew
Schwenzer
Rosenberg
Ebell
Landry
Buff
Blackhall
Vitelli
Peterson
O'Keeffe
Thomas
Roberts
Keatinge
Taffet
Rozenbaum
Urberg
Kelly
Ballin
Sowden
Bedell
Hershey
Arena
Swenson
Peatfield
Stiles
Jeresaty
Saphir
Johnson
Overall
0
10
20
30
40
50
60
70
80
90
Percent of Survivors

Attention au dérapage!

Original Article

Characteristics of Patients Who Refuse Do-Not-Resuscitate Orders Upon Admission to an Acute Palliative Care Unit in a Comprehensive Cancer Center

Henrique A. Parsons, MD[1]; Maxine J. de la Cruz, MD[1]; Donna S. Zhukovsky, MD[1]; David Hui, MD, MSc[1]; Marvin O. Delgado-Guay, MD[1]; Adenike E. Akitoye, MD[1]; Badi El Osta, MD[1]; Lynn Palmer, PhD[1]; Shana L. Palla, MSc[2]; and Eduardo Bruera, MD[1]

Cancer 2010;116:3061–70.

La ventilation mécanique

Support Care Cancer (2003) 11:236–241
DOI 10.1007/s00520-002-0436-2

ORIGINAL ARTICLE

F. Vallot
M. Paesmans
T. Berghmans
J. P. Sculier

Leucopenia is an independent predictor in cancer patients requiring invasive mechanical ventilation: a prognostic factor analysis in a series of 168 patients

Table 2 Outcomes results

Duration of mechanical ventilation	
Median Range	111–183
Weaning from mechanical ventilation	43 (26%)
Discharge from ICU	37 (22%)
Duration of ICU stay	
Median	16
Range	1–244
Discharge from hospital	29 (17%)

Table 4 Multivariate analyses of prognostic factor for weaning, ICU mortality and hospital mortality (n=159)

Variables	Weaning[a]			ICU mortality[b]			Hospital mortality[c]		
	OR	95% CI	*P*	OR	95% CI	*P*	OR	95% CI	*P*
Leucopenia (ref=no)	0.35	0.14–0.89	0.03	0.42	0.15–1.20	0.09	0.23	0.06–0.83	0.03
Shock (ref=yes)	–	–	–	2.04	0.90–4.63	0.08	–	–	–
Cancer evolution duration (ref=>14.5 months)	–	–	–	0.49	0.22–1.07	0.07	0.46	0.19–1.12	0.09
Type of tumour (ref=haemalogical malignancies)	–	–	–	–	–	–	0.45	0.19–1.07	0.07

HOSPITAL CHRONICLES 2006, 1(2): 93–98

ORIGINAL ARTICLE

Non-invasive Ventilation in Cancer Patients: a historically matched controlled study

A-P. Meert[1], M. Sotiriou[1], T. Berghmans[1], M. Hardy[1], E. Markiewicz[1], M. Paesmans[2], J-P. Sculier[1]

Meert, 2005 (2 x 47 patients pairés)

Résultats	**Bras**		***p***
	VNI	**VMI**	
Durée ventilation (jour) -médiane (intervalle)	3 (1-26)	10 (0-47)	0,001
Durée hospitalisation USI (jours) -médiane (intervalle)	9 (1-42)	16 (1-91)	0,01
Sortie USI	26 (55,3%)	13 (27,6%)	0,01
Sortie hôpital	23 (48,9%)	11 (23,4%)	0,08

Sous-groupe	Bras				*p*
	VNI		VMI		
	N pts	% sorties	N pts	% sorties	
Tumeurs solides	29	69	28	28,6	0,02
Hémopathies malignes	18	33,3	19	26,3	0,63
Patients leucopéniques	10	10,0	10	20,0	1
Patients non leucopéniques	37	67,5	37	29,7	0,004
Allo-greffés	9	22,2	9	22,2	1
Non allo-greffés	38	63,1	38	28,9	0,004
IRA hypoxémiques	34	47,0	34	20,6	0,02
IRA hypercapniques	10	90	10	40,0	0,13
OPH	3	66,6	3	66,6	NA
Pairés avec contrôles avant 1996	26	61,5	26	11,5	0,004
Pairés avec contrôles après 1996	21	47,6	21	47,9	7

La VMI à l'ère de la VNI

Journal of BUON **16**: 160-165, 2011
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ORIGINAL ARTICLE

Invasive mechanical ventilation in cancer patients. Prior non invasive ventilation is a poor prognostic factor

- IJB : janvier 2000 à décembre 2007
- 164 patients :
  - VMI d'emblée : 123
  - VMI puis VNI : 41

Table 1. Patient characteristics on admission

Characteristics	*Whole group*	*NIV followed by IMV*	*IMV alone*	*p-value*
Number of patients	164	41	123	
Median age, years (range)	57 (19-81)	49 (23-78)	59 (20-81)	0.008
Gender				0.86
Male, n	95	23	72	
Female, n	69	18	51	
Median SAPS II score (range)	53 (23-94)	56 (23-83)	47 (30-94)	0.002
Type of malignancy, n (%)				<0.001
Solid tumor	106 (64.6)	16 (39.0)	90 (73.2)	
Haematological malignancy	58 (35.4)	25 (61.0)	33 (26.8)	
Bone marrow /Peripheral blood stem cell transplantation, n (%)	37 (63.8)	19 (76.0)	18 (54.5)	<0.001
Cancer phase* (1,2 vs. 3,4), n (%)				0.006
Phase 1	5 (3.0)	1 (2.4)	4 (3.2)	
Phase 2	60 (36.6)	23 (56.1)	37 (30.1)	
Phase 3	89 (54.3)	17 (41.5)	72 (58.5)	
Phase 4	10 (6.1)	0 (0.0)	10 (8.1)	
Leukopenia at admission, n (%)	40 (24.4)	13 (31.7)	27 (21.9)	0.22
Median PaO_2/FiO_2 ratio (range)	215 (46-590)	183 (52-407)	230 (46-590)	0.02

*Cancer phase: 1= diagnostic, 2= curative, 3= controllable but no longer curable, 4= pivotal. IMV= invasive mechanical ventilation, NIV= non invasive ventilation

Table 3. Complications leading to ventilation

Complications	*Whole group (n=164) %*	*NIV followed by IMV (n=41) %*	*IMV alone (n=123) %*
Sepsis/shock	34.7	34.1	34.9
Respiratory failure	33.5	56.1	24.3
Cardiopulmonary resuscitation	15.8	–	21.0
Neurologic disease	10.3	4.8	12.1
Heart disease	3.6	–	4.8
Other	1.8	–	2.4

Résultats

	Total	*VMI après VNI*	*VMI d'emblée*
Sevrage VM	35%	**21,9%**	**39,8%**
Sortie USI	28%	**1,1%**	**31,7%**
Sortie hôpital	24%	**9,8%**	**27,6%**

p = 0,02

Table 5. Multivariate analysis of variables predicting hospital discharge

Variable		*OR (95% CI)*	*p-value*
NIV before IMV vs. immediate IMV	Yes vs. no	0.30 (0.09-0.95)	0.04
Leukopenia	Yes vs. no	0.21 (0.06-0.77)	0.02
Serum bilirubin	≥ 1.1 vs. <1.1 mg/dl	0.38 (0.16-0.94)	0.04

L'épuration extra-rénale

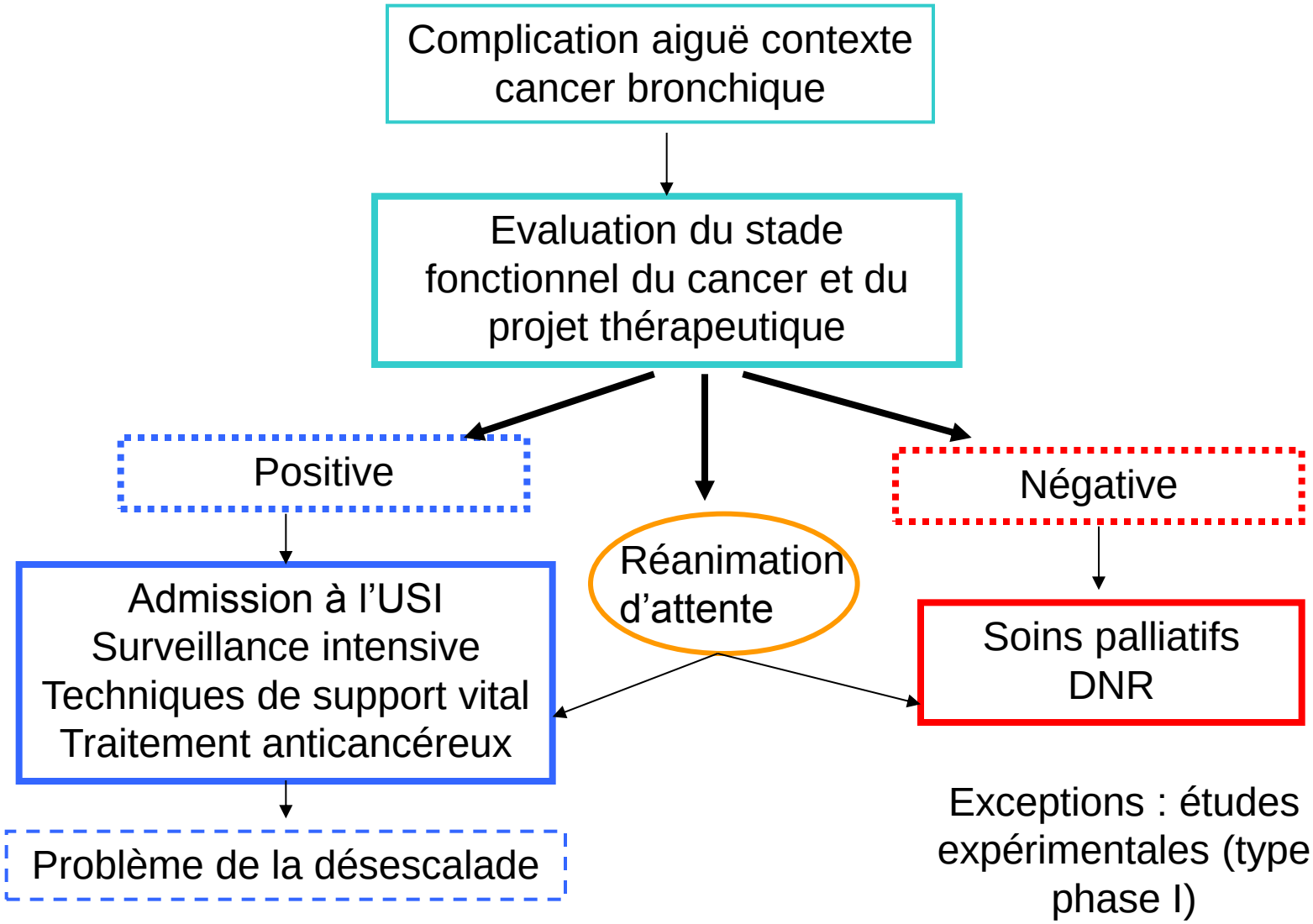
103 patients	N
Homme/Femme	69/39
Âge	62 ans
Admission USI Pathologie rénale Choc/sepsis Autre	58 20 25
IGS II médian	56
Tumeurs solides Tumeurs hématologiques	68 35
Allo/auto greffe	14/4
> 1 organe défaillant	65

Facteurs étiologiques associés à l'IRA		
	N	%
Toxique	48	47
Choc/sepsis	41	40
Nécrose tubulaire aiguë	19	18
Cancer	10	10
Lyse tumorale	8	8
SDMV	4	4
Syndrome hépato-rénal	4	4
Autres	12	12
Inconnu	6	6
≥2 facteurs étiologiques	43	42

Facteurs prédictifs mortalité hospitalière

Analyse univariée	
	p
Type de tumeur	0,034
N organes défaillants	<0,00001
Score IGS II	0,022
Bilirubinémie	0,0002
Créatininémie	0,02
Natrémie	0,01
Albuminémie	0,0001
Greffe moelle	0,01
SDRA	0,001
Ventilation mécanique	0,0001
Amines	0,002

Analyse multivariée			
	Odds Ratio	IC 95%	p
N organes défaillants >1	5,918	2,184 – 16,038	<0,001
Albumine ≤ 2,55 g/dl	3,341	1,229 – 9,077	0,02

- Résolution IRA : absence 58, partielle 18, complète 27
- Mortalité : USI 49%, Hôpital 63%
- Parmi les patients sortis vivants, 18% dialyse chronique (7% du collectif initial)
- Survie médiane des patients sortis vivants : 413 jours

Conclusions