Les indicateurs médico-économiques et l'innovation en oncologie thoracique

Chouaid C, Crequit P, Borget I, Vergnenegre A.

UPEC
UNIVERSITÉ PARIS-EST CRÉTEIL
FACULTÉ DE MÉDECINE

Déclaration de liens d'intérêts

J’ai actuellement, ou j’ai eu au cours des trois dernières années des liens d’intérêt avec les sociétés commerciales suivantes

Astra Zeneca, Boehringer Ingelheim, GlaxoSmithKline, Hoffman la Roche, GSK, Lilly, Pfizer, MSD, BMS et Amgen

pour participation à des congrès, communications, actions de formation, travaux de recherche, participation à des groupes d’experts, rédaction d’articles ou documents, conseils et expertises

Des chiffres

- Chimiothérapie pour KBP
  HDJ : 387 €
  1 nuit : 899 €
  2 - 10 nuits sans CMA : 2368 €
  7 - 39 nuits avec CMA : 9077 €
- Aplasie : 3-12 jours : 2504 €
- Transfusion : 697 €

C-navelbine :	dans le GHM
C-gemcitabine	dans le GHM
C-alimta	2 956 €
C-Taxotere	dans le GHM
Tarceva	2 000 €
Avastin	3 000 €
Epo / G-CSF	1000 €

Crizotinib/Ceritinib : 6 000 €

Tagrisso : 7 700 € ?

Immunothérapie : 6 000 € ?

Le coût par patient

- **Adénocarcinome st IV, 14 mois de vie**
  - 4 C-Alimta 8 868 euros
  - 6 Alimta maintenance 13 230 euros
  - 4 mois de tarceva 9 320 euros
  - 2 Taxotere 2 420 euros
  - 12 hdj chimio + 1 aplasie

  1 transfusion + 1 SP : 7 201 euros

Coût total : 41 039 euros

Si Avastin : 56 387 euros

Cout de prise en charge d'un cancer du poumon en France (euros)

2002	**20 184**	
2009	**39 708**	Docetaxel
2011	60 000	Bevacizumab
2013	100 000	Crizotinib
2017	150 000	Immunotherapie

Chouaid, BMJ 2004,
Chouaid,CMRO 2007

Vergnenegre, JTO 2011

Les enjeux en oncologie

- Augmentation des coûts : inéluctable
  - progrès médicaux et vieillissement
- Nécessité d'équité = débat public
- Inégalités d'accès : aux prises en charge, aux techniques et thérapeutiques innovantes
- Mieux tenir compte de l'utilité (qualité de vie) des soins exprimé par le patient

Les enjeux

How Much Is Life Worth: Cetuximab, Non–Small Cell Lung Cancer, and the $440 Billion Question

Tito Fojo, Christine Grady — J Natl Cancer Inst 2009;101:1044–1048

Oncologists must offer clear guidance for the conduct of research, interpretation of results, and prescription of chemotherapies.

European Perspective on the Costs and Cost-Effectiveness of Cancer Therapies

Michael F. Drummond and Anne R. Mason

American Society of Clinical Oncology Guidance Statement: The Cost of Cancer Care

Neal J. Meropol, Deborah Schrag, Thomas J. Smith, Therese M. Mulvey, Robert M. Langdon Jr, Diane Blum, Peter A. Ubel, and Lowell E. Schnipper

Cost of Cancer Care: Issues and Implications

Neal J. Meropol and Kevin A. Schulman

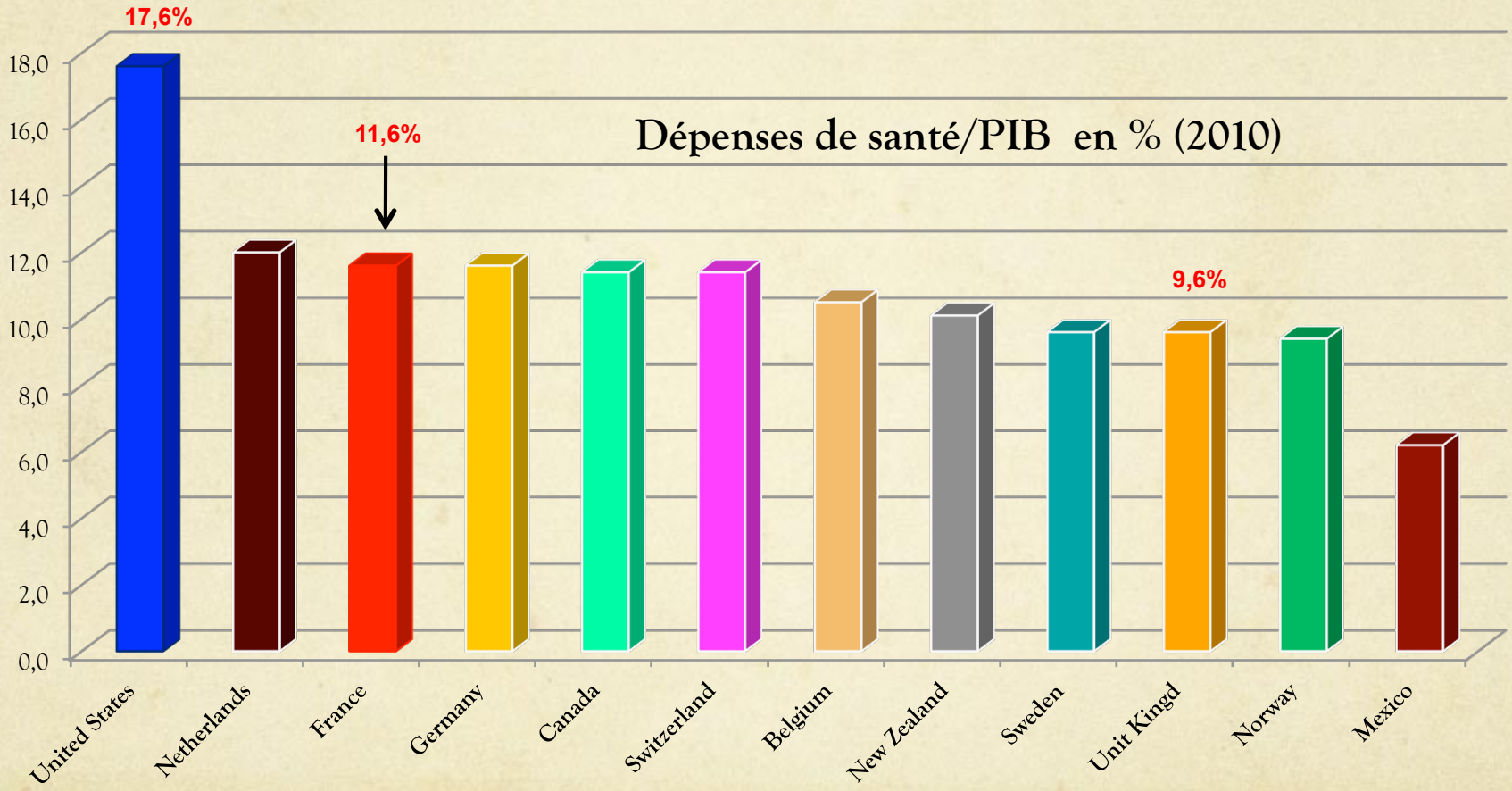
Washington Cancer Patients Found To Be At Greater Risk For Bankruptcy Than People Without A Cancer Diagnosis

Scott D. Ramsey, MD, PhD[a], David K. Blough, PhD[b], Anne C. Kirchhoff, PhD, MPH[c], Catherine R. Fedorenko, MMSc[a], Kyle S. Snell, MS[a], Karma L. Kreizenbeck, BA[a], Polly Newcomb, PhD[a], William Hollingworth, PhD[d], and Karen A. Overstreet, JD[e]

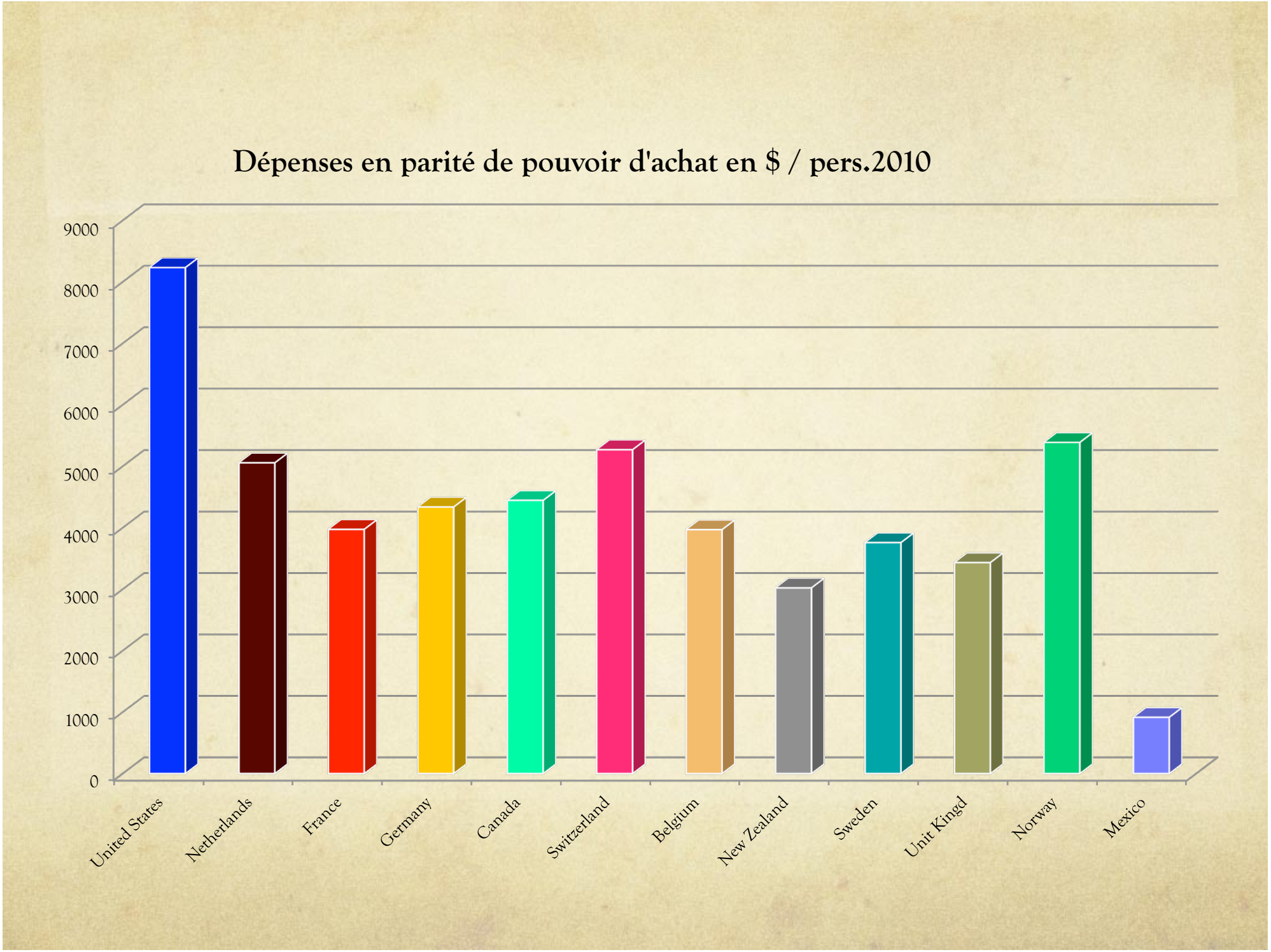
	Age (years)									
	20–34		35–49		50–64		65–79		80–90	
Cancer type	Cancer	Control	Cancer	Control	Cancer	Control	Cancer	Control	Cancer	Control
Breast	13.95	3.23	7.98	3.03	4.95	2.27	2.12	0.96	1.29	0.48
Colorectal	11.71	1.96	9.27	2.24	5.55	2.10	2.90	0.87	0.73	0.61
Leuk/lymph	9.62	2.07	9.20	3.13	5.06	1.86	3.5	1.21	0.47	0.44
Lung	2.83	0.00	12.49	2.45	8.0	0	5.03	0.99	1.28	0.50
Melanoma	8.30	3.84	7.14	3.74	3.1	2.10	1.94	0.89	1.40	0.45
Prostate	—*a*	—*a*	6.19	2.52	3.47	1.71	2.44	0.87	0.65	0.82
Thyroid	11.37	3.2	9.05	2.06	6.01	2.91	4.05	1.83	0.00	0.00
Uterine	18.02	1.77	10.45	4.93	5.33	2.27	2.96	1.06	1.51	0.45
Other	9.53	3.33	9.19	2.46	6.45	2.04	2.88	1.03	0.62	0.58
All	10.06	3.15	8.55	2.75	5.01	2.04	2.76	0.98	0.94	0.57

Toxicité financière

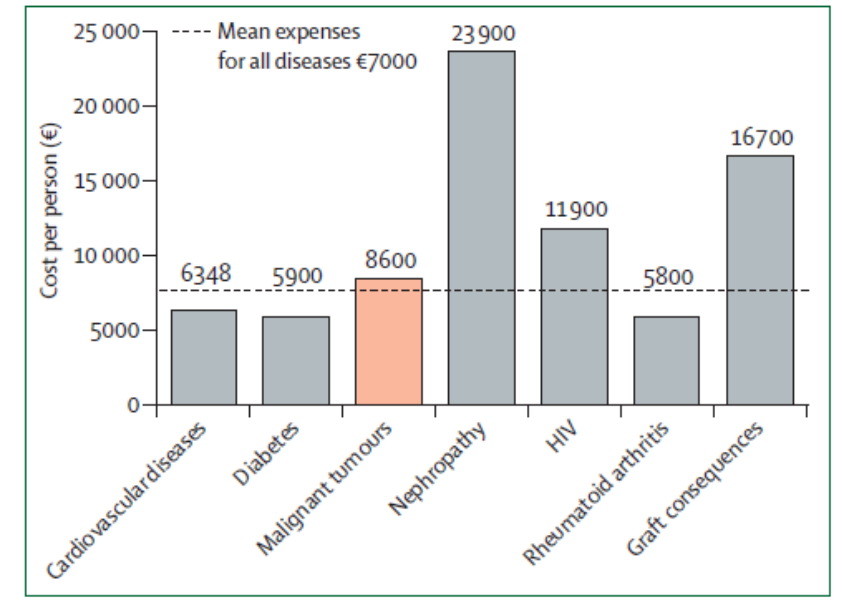
Poids des dépenses de santé - quelques chiffres :



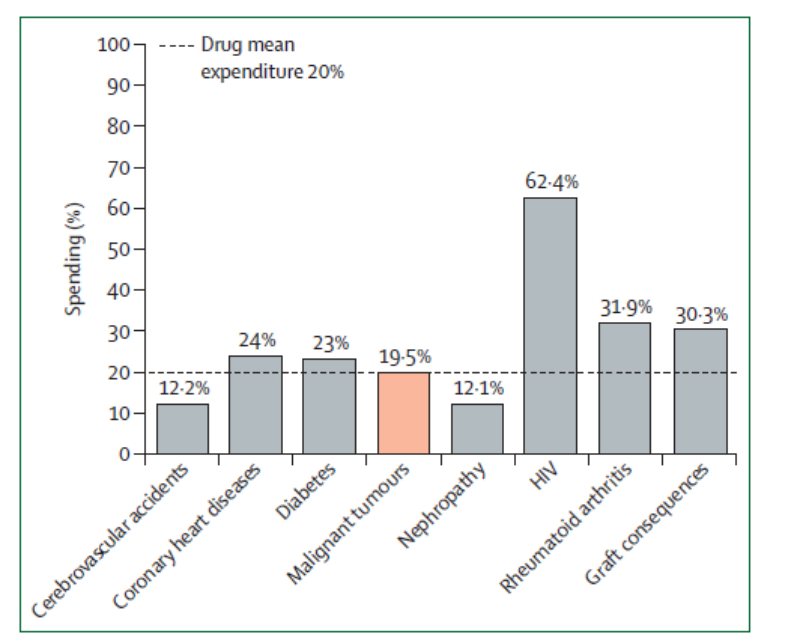
En France 12 % du PIB en 2011 (11,6 % en 2010)


Dépenses en parité de pouvoir d'achat en $ / pers.2010
9000
8000
7000
6000
5000
4000
3000
2000
1000
0
United States
Netherlands
France
Germany
Canada
Switzerland
Belgium
New Zealand
Sweden
Unit Kingd
Norway
Mexico

La situation



Le cout du cancer en France
Par personne traité



La part des médicaments dans le coût des maladies chronique en France

The Lancet Oncology Commission

Prix du médicament administré

- Négociations Etat – industrie du médicament
- Volumes autorisés : remises si dépassement ou hors AMM.
- Prix officiel publié, négociations avec les hôpitaux ou les centrales d'achat, reversements spécifiques, taxes sur la promotion, taxe sur les ventes directes…
- **Coût du médicament mécanisme complexe, évolutif dans le temps et absolument pas transparent**

Chouaid et al. Targ Oncol 2016

Place de l'évaluation médico économique

- Décret n°2012-1116 du 2 octobre 2012 précise les produits de santé soumis à une évaluation médico-économique :
  - Qu'une ASMR de niveau I à III est revendiquée,
  - Que le chiffre d'affaire prévisionnel à deux ans est supérieur à 20 M€.
- Une analyse d'impact budgétaire est obligatoire si le CA prévisionnel à deux ans est > 50M€.

L'avenir : prendre en charge les innovations

- Pas d'instance publique chargé d'une réflexion prospective sur cet l'impact budgétaire et organisationnel des nouveaux modes de prise en charge induit par le progrès thérapeutique.
- **Définir une innovation en cancérologie fait aujourd'hui débat.**

Innovations : Valeur ajoutée (vie gagné ou qualité de vie)

Formes localisées = innovations organisationnelles

a). dépistages organisées

b). filières diagnostic précoce (diagnostic un jour),

c). valeurs seuils pour la chirurgie carcinologique

d). amélioration équipement en radiothérapie.

Formes avancées = médecine de précision

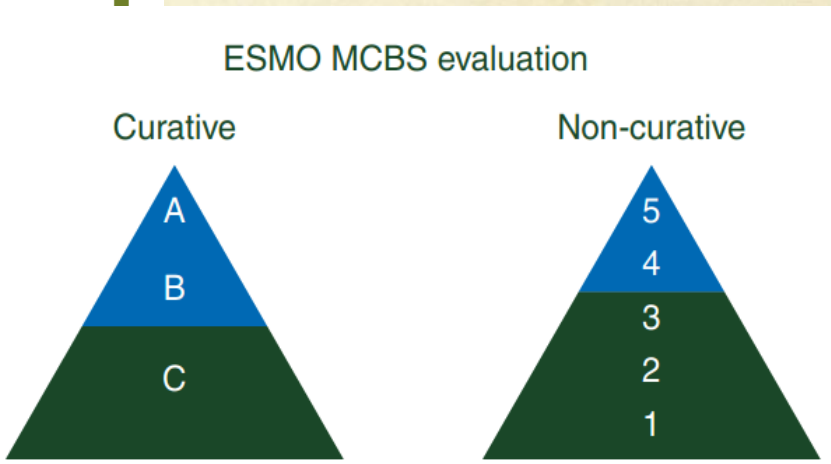
a). Biologie moléculaire

b). Thérapie ciblée - immunothérapie

A standardised, generic, validated approach to stratify the magnitude of clinical benefit that can be anticipated from anti-cancer therapies: the European Society for Medical Oncology Magnitude of Clinical Benefit Scale (ESMO-MCBS)

Table 2. Maximal preliminary scores

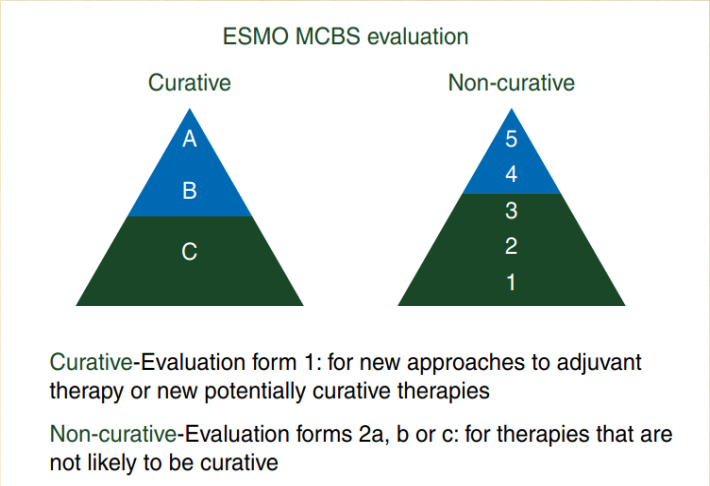
Treatments with curative intent (form 1)
>5% improvement of survival at ≥3-year follow-up
Improvements in DFS alone HR <0.60 (primary end point) in studies without mature survival data
Treatments with non-curative intent (form 2)
Primary outcome OS (form 2a)
Control ≤12 months
HR ≤0.65 *AND* gain ≥3 months *OR*
Increase *in* 2-year survival alone ≥10%
Control >12 months
HR ≤0.70 *AND* gain ≥5 months *OR*
Increase *in* 3-year survival alone ≥10%
Primary outcome PFS (form 2b)
Control ≤6 months
HR ≤0.65 *AND* gain ≥1.5 months
Control >6 months
HR ≤0.65 *AND* gain ≥3 months



Curative-Evaluation form 1: for new approaches to adjuvant therapy or new potentially curative therapies

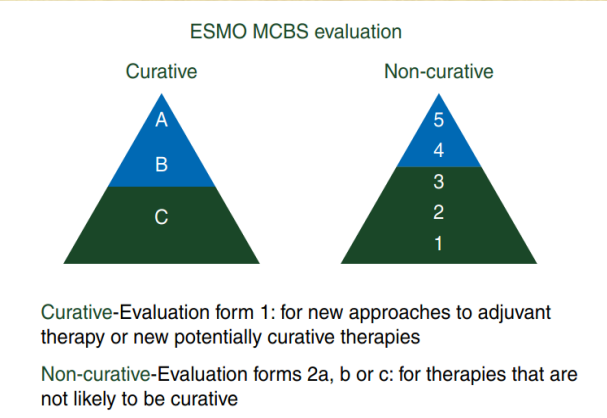
Non-curative-Evaluation forms 2a, b or c: for therapies that are not likely to be curative

Intention curative



Critères	Grade
Survie globale à 3 ans ou plus	
> 5 %	A
3 à 5 %	B
Survie sans maladie (si pas de données de SG matures)	
HR <0,65	A
HR : 0,65 et 0,8, avec réduction toxicité ou amélioration de la qualité de vie ou réduction coût	B

Intention palliative



Survie globale	Grade
Médiane bras référence > 12 mois	
HR ≤0,7 et gain absolu ≥ 5 mois	4
HR ≤0,7 et gain de 3 à 4,9 mois	3
Gain en % de survie à 3 ans ≥ 10 %	4
Gain en % de survie à 3 ans ≥ 5 à 10 %	3
Médiane bras référence < 12 mois	
HR ≤ 0,65 et gain absolu ≥ 3 mois	4
HR ≤ 0,65 et gain absolu de 2,5 à 2,9	3
Gain en % de survie à 2 ans ≥ 10 %	4
Gain en % de survie à 2 ans ≥ 5 à 10 %	3

Malus décès toxiques > 2 % ischémie cardiovasculaire > 2% insuffisance cardiaquesévère > 4 % neurotoxicité de grade 3 > 10 % toxicitéschroniques ou irréversibles > 2 % hospitalisationspour toxicités > 10 %	-1
Bonus Amélioration de la qualité de vie Réduction toxicités impactant vie quotidienne	- 1

Updating the American Society of Clinical Oncology Value Framework: Revisions and Reflections in Response to Comments Received

http://jco.ascopubs.org/cgi/doi/10.1200/JCO.2016.68.2518

Step 1: Determine the regimen's CLINICAL BENEFIT		
1.A. Is hazard ratio (HR) for death reported?	**YES.** Assign an HR Score for death by subtracting the HR from 1, and then multiplying the result by 100. Write this number in the box labeled "HR Score (death)." **Proceed to 1.F.**	**HR Score (death)**
	No. Proceed to 1B.	
1.B. If HR for death is not reported, is median overall survival (OS) reported?	**YES.** Assign an OS Score by calculating the percentage (ie, fractional) difference in median overall survival between the two regimens and multiply the result by 100. Write this number in the box labeled "OS Score." **Proceed to 1.F.**	**OS Score**
	NO. Proceed to 1.C.	
1.C. If OS data are not reported, is hazard ratio (HR) for disease progression reported?	**YES.** Assign an HR Score for disease progression by subtracting the HR from 1, multiplying the result by 100, and then multiplying this number by 0.8. Write this number in the box labeled "HR Score (progression)." **Proceed to 1.F.**	**HR Score (progression)**
	NO. Proceed to 1.D.	
1.D. If HR for disease progression is not reported, is median progression-free survival (PFS) reported?	**YES.** Assign a PFS Score by calculating the percentage (ie, fractional) difference in median progression-free survival between the two regimens and multiply the result by 100. Multiply this number by 0.8. Write this number in the box labeled "PFS Score." **Proceed to 1.F.**	**PFS Score**
	NO. Proceed to 1.E.	
1.E. If median PFS is not reported, is response rate (RR) reported?	**YES.** Assign an RR Score by adding the complete response (CR) and partial response (PR) rates, multiply by 100, then multiply this number by 0.7. Write this number in the box labeled "RR Score." **Proceed to 1.F.**	**RR Score**
1.F. Calculate the Clinical Benefit Score	Insert the score for HR death, HR PFS, median OS, or median PFS. **Note: You should have a score for only 1 of the clinical benefit scales above.** Write the total in the box labeled "Clinical Benefit Score." **Proceed to Step 2.**	**Clinical Benefit Score**

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Step 2: Determine the regimen's TOXICITY		
Does the new regimen represent an improvement in toxicity over the standard of care/ comparator?	For each of the regimens being assessed, compare the number and frequency of clinically relevant toxicities, and assign a Toxicity Score) as shown below. Each clinically meaningful toxicity (ie, exclude laboratory results only) is assigned a score between 0.5 and 2.0 based on grade and frequency: For every grade 1 or 2 toxicity with a frequency < 10%, record 0.5 points. For every grade 1 or 2 toxicity with a frequency ≥ 10%, record 1.0 points. For every grade 3 or 4 toxicity with a frequency < 5%, record 1.5 points. For every grade 3 or 4 toxicity with a frequency ≥ 5%, record 2.0 points. Calculate the total number of toxicity points for each regimen. Calculate the percentage difference in total toxicity points between the two regimens, then multiply by 20 to obtain a toxicity score. If the regimen being evaluated is more toxic than the comparator, subtract the toxicity score of the regimen from the clinical benefit score. If the regimen is less toxic than the comparator, add the toxicity score of the regimen to the clinical benefit score. **If there are unresolved symptomatic treatment-related toxicities at 1 year after completion of treatment, subtract 5 additional points from the clinical benefit score.** The maximum points that can be awarded is 20. **Proceed to Step 3.**	**Toxicity Score**

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Step 3: Determine Bonus Points

3.B. PALLIATION BONUS. Is an improvement in cancer-related symptoms reported?	**YES.** If a statistically significant improvement in cancer-related symptoms is reported for the regimen being evaluated, award 10 points, and place this number in the box labeled "Palliation Bonus." **Proceed to Step 3.C.**	**Palliation Bonus**
	NO. No bonus points are awarded. **Proceed to Step 3.C.**	
3.C. QoL BONUS. Is an improvement in QoL reported?	**YES.** If a statistically significant improvement in QoL is reported for the regimen being evaluated, award 10 points, and place this number in the box labeled "QoL Bonus." **Proceed to Step 3.D.**	**QoL Bonus**
	NO. No bonus points are awarded. **Proceed to Step 3.D.**	
3.D. TREATMENT-FREE INTERVAL BONUS. Are data related to treatment-free interval reported?	**YES.** If a statistically significant improvement in treatment-free interval is reported for the regimen being evaluated, multiply the percentage improvement by 20 and award points. **Proceed to 3.E.**	**Treatment-Free Interval Bonus**
	NO. No bonus points are awarded. **Proceed to Step 3.E.**	
3.E. Calculate Total Bonus Points	Add the Palliation Bonus Points (Step 3.A), the Treatment-Free Interval Bonus Points (Step 3.B), and the QoL Bonus Points (Step 3.C.). Write this number in the box labeled "Total Bonus Points." The maximum points available for Bonus Points is 60. **Proceed to Step 4.**	**Total Bonus Points**

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Step 4: Determine the regimen's NET HEALTH BENEFIT		
Calculate the Net Health Benefit	Add the Clinical Benefit Score (Step 1), Toxicity Score (Step 2), and Bonus Points (Step 3). This yields a Net Health Benefit Score. Write this number in the box labeled "Net Health Benefit." Proceed to **Step 5.**	**Net Health Benefit**
Step 5: Determine the regimen's COST		
Insert the drug acquisition cost (DAC) and patient co-pay based on how much the treatment regimen costs per month.		**Cost (per month)** **DAC:** _____ **Patient Payment:** _____

Step 6: Summary Assessment: Advanced Disease Framework

Clinical Benefit	Toxicity	Bonus Points	Net Health Benefit	Cost (per month)
				DAC: _____ Patient Payment: _____

Conclusion

- L'innovation (organisation, médicaments, équipement) est un **enjeu majeur** du progrès en oncologie
- Le système de santé **doit s'adapter** à des innovations de plus en plus importantes et nombreuses
- La transparence dans la démarche est un élément important de la confiance
- Enjeu politique majeur pour lutter **contre les inégalités de santé**