

**Table S1. Variables used in the guidelines for health status definition, and the classifying algorithm.**

Classification <sup>a</sup> (guideline)	Original variables used for health status definition	Variables used for scoring and analysis	Classifying algorithm
<b>Balducci [1] (adapted) (AFU 2009 [2], AFU 2010 [3], AFU 2013 [4])</b>	Autonomous patient No comorbidities	≥ 1 abnormal IADL items Number of CIRS-G grade 3 comorbidities. Number of CIRS-G grade 3 comorbidities	Group 1: ≥ 1 abnormal IADL items and no CIRS-G grade 3 comorbidities Group 2: ≥ 1 abnormal IADL items or ≤2 CIRS-G grade 3 comorbidities and no CIRS-G grade 4 comorbidities Group 3: ≥ 1 abnormal IADL items and >2 CIRS-G grade 3 comorbidities or ≥ 1 CIRS-G grade 4 comorbidities  Treatment decision: Group 1: Standard treatment Group 2: Adjusted treatment Group 3: Supportive care
<b>Droz et al [5] (SIOG 2010 [5] ; EAU 2012 [6] ; EAU 2013 [7])</b>	Comorbidities: Any CIRS-G grade 0,1 or 2 comorbidities. 1 CIRS-G grade 3 comorbidity. ≥ 2 CIRS-G grade 3 comorbidities ≥ 1CIRS-G grade 4 comorbidities Dependence: ≥ 1 abnormal IADL items (4 items from the Lawton scale: abilities to manage money, manage medications, use transportation, and use the telephone) ≥ 1 abnormal ADL items, except for continence (6 items: bathing, dressing, toileting, transferring, continence, and feeding) Nutritional status: Weight loss during the previous 3 months (good nutritional status: <5% of weight loss; risk of malnutrition: weight loss of 5% to 10%; severe malnutrition: weight loss >10%)	The same variables as for the health status definition. Terminal and bedridden (ECOG PS=4)	Healthy: No CIRS-G grade 3 or 4 comorbidities, no abnormal IADL items, no abnormal ADL items, and <5% of weight loss Vulnerable: 1 CIRS-G grade 3 comorbidities and no CIRS-G grade 4 comorbidities ≥ 1 abnormal IADL items, ≥ 1 abnormal ADL items, and 5 to 10% weight loss Frail: ≥ 2 CIRS-G grade 3 comorbidities, ≥ 1CIRS-G grade 4 comorbidities, ≥ 1 abnormal ADL items or >10% weight loss Terminal illness ≥ 2 CIRS-G grade 3 comorbidities or ≥ 1CIRS-G grade 4 comorbidities and ≥ 1 abnormal ADL items and >10% weight loss or ECOG PS of 4  Treatment decision: Healthy: standard treatment Vulnerable: standard treatment except for prostatectomy Frail: adjusted treatment Terminal: supportive care

**Table S1. (Continued)**

<b>Droz et al [8] (SIOG 2014 [8]; EAU 2014 [9]; EAU 2015 [10] ; EAU 2016 [11] ; AFU 2016 [12])</b>	<p>G8 score <math>\leq 14</math> of 17 Comorbidities: Any CIRS-G grade 0,1 or 2 comorbidities. <math>\geq 1</math> CIRS-G grade 3 comorbidities <math>\geq 1</math> CIRS-G grade 4 comorbidities Dependence: 1 or 2 abnormal ADL items, except for incontinence (6 items: bathing, dressing, toileting, transferring, continence, and feeding) <math>\geq 1</math> abnormal IADL items (4 items from the Lawton scale: ability to manage money, manage medications, use transportation, and use the telephone) Nutritional status: Weight loss during the previous 3 months (good nutritional status: weight loss <math>&lt;5\%</math>; risk of malnutrition: weight loss 5% to 10%; severe malnutrition: weight loss <math>&gt;10\%</math>) No neuropsychological problems except for depression.</p>	<p>The same variables as for the health status definition. Cognitive impairment as assessed by an experienced clinician</p>	<p>Fit: G8 score of <math>&gt;14</math> Vulnerable: 1 or 2 abnormal ADL items or 5% to 10% weight loss or any CIRS-G grade 0,1 or 2 comorbidities Frail <math>\geq 1</math> abnormal IADL items or <math>\geq 3</math> abnormal ADL items or <math>&gt;10\%</math> weight loss or cognitive impairment or <math>\geq 1</math> CIRS-G grade 3 comorbidities or <math>\geq 1</math> CIRS-G grade 4 comorbidities.  Treatment decision: Fit: standard treatment Vulnerable: standard treatment Frail: adjusted treatment</p>
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**Table S1. (Continued)**

<b>Droz et al [13] SIOG 2017 [13]; EAU 2017 [14], EAU 2018 [15])</b>	G8 score $\leq 14$ out of 17 Comorbidities: Any CIRS-G grade 0,1 or 2 comorbidities. $\geq 1$ CIRS-G grade 3 comorbidities $\geq 1$ CIRS-G grade 4 comorbidities Dependence: 1 or 2 abnormal ADL items except for incontinence (6 items: bathing, dressing, toileting, transferring, continence, and feeding) Nutritional status: Weight loss during the previous 3 months (good nutritional status $<5\%$ of weight loss, risk of malnutrition, weight loss 5% to 10%; severe malnutrition, weight loss $>10\%$ )	The same variables as for the health status definition.	Fit: G8 score $>14$ Frail: G8 score $\leq 14$ and 1 or 2 abnormal ADL items or 5% to 10% weight loss or any CIRS-G grade 0,1 or 2 comorbidities Disabled: G8 score $\leq 14$ and $\geq 3$ abnormal ADL items or $>10\%$ weight loss or $\geq 1$ CIRS-G grade 3 comorbidities or $\geq 1$ CIRS-G grade 4 comorbidities. Terminally ill: G8 score $\leq 14$ and $\geq 3$ abnormal ADL items and $>10\%$ weight loss and $\geq 1$ CIRS-G grade 4 comorbidities or ECOG PS of 4.  Treatment decision: Fit: standard treatment Frail: standard treatment Disabled: adjusted treatment Terminally ill: supportive care
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a. For each patient, the health status and the recommended treatment was assessed using the available guidelines in the corresponding period.

We considered that it would have taken a further 12 months before the guidelines were considered for treatment selection. For instance, for a patient included in 2011, the health status and the corresponding treatment was assessed using the AFU guidelines of 2010 and the SIOG guidelines of 2010. The EAU guidelines were not considered for this patient as the EAU guidelines of 2010 did not consider a health status evaluation before treatment selection. For a patient included in 2015, the health status and the corresponding treatment was assessed using the AFU guidelines of 2013, the SIOG guidelines of 2014 and the EAU guidelines of 2014. AFU: French Association of Urology, EAU: European Association of Urology, SIOG: International Society of Geriatric Oncology.

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