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Appendix

Doing more does not mean doing better: the FADOI contribution to the *Slow Medicine* program for a sustainable and wise healthcare system

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The ten practices with the highest degree of risk of non-appropriateness in Internal Medicine. The FADOI endorsement

1	**Do not prescribe acid suppressant therapy in order to prevent stress ulcers in hospitalized patients, unless there is a high risk of bleeding.**
	According to the international guidelines, the pharmacological prophylaxis of the peptic stress ulcers with antagonists of the H2 receptors or proton pump inhibitors (PPI) is not indicated outside the intensive care setting. Even the term *gastric protection* should be avoided in this context, because it emphasizes the beneficial (obviously desirable) action, while masking the adverse effects and the possible harms. In particular, the PPI, largely used for prevention purposes in Italy, enhance the susceptibility to communitary pneumonias and to *Chlostridium difficile* infections. Even if thought for a limited period of time during a hospital stay, their prescription tends to persist indefinitely outside the hospital, with a relevant impact in terms of pharmacy expenditures.
2	**Do not treat a bacteriuria with antibiotics in elderly patients without urinary symptoms.**
	An asymptomatic bacteriuria should be managed conservatively. In elderly people, a bacteriuria is not necessarily harmful, while antibiotics are not obviously beneficial: often, they bring about undesirable effects, such as specific adverse reactions and undue selective pressure over the colonizing bacteria (especially enteric), with the development of resistant species. Screening and subsequent treatment of asymptomatic bacteriruria is justified only before urological procedures with anticipated mucosal bleeding. In 30% of asymptomatic subjects, a bacteiuria is not confirmed by a second examination.
3	**Do not recommend percutaneous feeding tubes in advanced dementia; prefer oral assisted feeding instead.**
	In advanced dementia, the use of percutaneous feeding tubes does not increases survival, does not lowers the risk of aspiration pneumonias, does not improves the healing of existing pressure ulcers (instead, it increases their risk); it augments physiological stress, the need for physical containment and sedation, the risk of water overcharge, diarrhea, abdominal pain, local complications. The oral assisted feeding improves the nutritional status. However, in the end of life stage, nutrition should be focused on comfort and human relationship rather than on nutritional objectives.
4	**Do not repeat chemistry testing in the face of clinical and laboratory stability.**
	In the general wards, the patients are often submitted to repetitive draws of blood in the short terms, for redundant chemistry testing. Altered laboratory results often require controls, even though the original request was futile, and this amplifies the phenomenon. The anemia induced during hospitalization as a consequence of frequent draws tends to be underestimated, and this may become a problem in specific clinical settings. Attempts to

	introduce back-control in laboratory orders, based on *reflex* systems, incompatibility with previous results and automatic temporal filters are under way. However, it is part of the responsibility of the orderer to discern what is aimlessly repetitive, also through a better cooperation with the laboratory. Obviously, futile examinations produce wasting.
5	**Do not transfuse red blood cells for arbitrary Hb levels, without symptoms of active coronary artery disease, heart failure, stroke.**
	In chronic anemia states, a sparing transfusion policy is recommended, even in hospitalized patients. In general, a decision to transfuse should be considered starting from Hb levels of 6 g/dl in young patients with acute anemia, 7 in the great majority of patients, 8 in patients with previous cardiovascular diseases, 9 in critical patients. However, a decision should be based also on many factors that condition the clinical state of a patient, and the necessity of oxygenate underperfused organs. More liberal indications should be adopted in patients with symptoms of active coronary artery disease, heart failure and stroke. However, also in this kind of patients the benefit of Hb above 10 is uncertain. Unnecessary transfusions expose to undue risk of adverse events not counterbalanced by adjunctive benefits, and determine wasting.
6	**Do not use benzodiazepines in elderly patients as a first choice for insomnia, agitation, and delirium.**
	Elderly people assuming hypnotics (especially benzodiazepines) experience car accidents and falls with femur fractures and consequent hospitalization, more often than others. Also the hospitalized patients assuming benzodiazepines risk falls and their consequences, due to depressed alertness, motor deficits and cognitive impairement. The use of these drugs should be limited to alcohol withdrawal and anxious states. When requested, low dosage, short half-life and intermittent use should be preferred, and prolonged use should be submitted to frequent re-evaluation. In case of agitation and delirirum, other drug shloud be preferred.
7	**Do not delay palliative cares in the dying patients.**
	The quality of care offered to the dying patients in hospital is far from being optimal, mainly due to the fact that, because of organization and medicine attitude, in the general wards one tends to maintain standard therapeutic and diagnostic options, typically addressed to acute diseases, disregarding the real needs of a patient. This determines an insufficient control of the key symptoms that characterize the end stage (pain, dyspnea, agitation, respiratory secretions, *etc*.), with a negative impact on patients, caregivers and staff members themselves. The adoption of specifically conceived care-pathways improves symptom relief and confers dignity to end-of -life, without accelerating death (on the contrary, prolonging life in selected patients).
8	**Do not routinely prescribe lipid-lowering drugs in patients with a limited life expectancy.**
	Up to one-third of the population aged between 75 and 85 years assumes lipid-lowering drugs (mainly statins) for primary or secondary prevention purposes. However, the concept that high LDL-cholesterol and/or low HDL in elderly people are as important cardiovascular

	risk factors as in younger ages is controversial, being extrapolated; indeed, in the very old people, low LDL-cholesterol correlates with an increased mortality. Above 85 years, the risk/benefit ratio of statins is not obviously a favorable one because, while life expectancy decreases, the incidence of adverse effects (muscular damage, neuropathy, cognitive derangement, falls) becomes relatively greater. In the face of a limited life expectancy (*i.e.*, less than10 years), starting a therapy with statins is not evidence based, maintaining it, is questionable.
9	**Do not use non-steroid anti-inflammatory drugs (NSAID) in subjects with arterial hypertension, heart failure, renal insufficiency from any cause, including diabetes.**
	NSAID are largely used for muscle, bone and joint pain, but are associated with important cardiovascular, renal and hematological adverse effects, especially in elderly people. They may determine a blunted response to the antihypertensive drugs, water retention and worsening of the renal function in patients with high blood pressure, heart failure and chronic kidney disease from any cause, including diabetes. The most recent guidelines recommend to limit NSAID for the pain control in patients affected by such diseases, and to prefer paracetamol, tramadol and short-lived opioids as an alternative, as far as possible.
10	**Do not perform PET/CT for cancer screening in healthy subjects.**
	The probability to detect a tumor with such method in asymptomatic subjects is lower than 1%. In many cases, the diagnoses deal with indolent tumors (*i.e.*, low grade lymphomas), which do not benefit from early therapy, or far advanced and untreatable (although silent) tumors (*i.e.*, pancreatic cancer). False positive results predominate (especially in the head-neck region), bringing about adjunctive examinations and unnecessary (so harmful) biopsies and surgical procedures. Like all the other diagnostic methods, PET/TC must be used in front of clear questions and definite clinical settings.

How this list was created

After its adhesion to the Slow Medicine program, the FADOI was asked to contribute with a list of ten recommendations.

In early 2014, the National FADOI Council committed 2 of its component to elaborate a questionnaire containing a selection of the recommendations already published by Choosing Wisely® (270 from 56 north-American scientific societies, by February 2014), to be submitted to a critical number of FADOI members, in order to designate the *top ten* list.

In March 2014, a list of 32 recommendations (those most relevant for the hospital practice)

was sent to 1175 members (those affiliated to Piemonte, Veneto, Trentino AA, Friuli VG, Lazio, Campania), along with an explanatory letter, following the order of publication by Choosing Wisely®. Each member was asked to indicate the most relevant 5. The response rate was 18.1% (213, for a total number of 1037 indications) by the term of April 2014. This method was chosen in order to favor disclosure and sharing. The final *top ten* reflects the qualified opinion of a large number of FADOI members.

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	INDICATOR OF PERFORMANCE	INDICATOR OF OUTCOME
1	Number of prescriptions of PPI in hospital (acute phase) and outside hospital (chronic phase)	Number of hospital admissions for gastric bleeding
2	Number of prescriptions of antibiotics currently used for urinary tract infections	Number of hospital admissions for relapsing urinary infections or pyelonephritis
3	Number of prescriptions of percutaneous feeding tubes	Number of hospital admissions for aspiration pneumonias
4	Volume of laboratory requests	Length of stay in hospital and number of re-admission in hospital for the same reason in the short term
5	Blood consumption	Length of stay in hospital for heart failure (ICD9.CM 428) and number of re-admission in hospital for the same diagnosis in the short term
6	Number of prescriptions of benzodiazepines in hospital	Number of falls in hospitalized patients
7	Number of hi-tech diagnostic procedures (*i.e.*, CT or invasive procedures) during the last days of the patients who dye in hospital	Pain control during the last days of the patients who dye in hospital
8	Number of prescriptions of statins	Cardiovascular events in the elderly
9	Number of prescriptions of NSAID	Pain control
10	Number of PET/CT for cancer screening	Incidence of treatable cancers