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CE - LETTER TO THE EDITOR

# Internal medicine wards and the chronic diseases epidemic: it is time to change the standards

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Dear sir,

Increasing life expectancy, is associated with increasing prevalence of chronic diseases, often variously associated in the same patient leading to complex clinical pictures. The complexity of the management of patients with comorbidities is a real emergency, a kind of epidemic of the third millennium in developed countries. This kind of management is the core competency of Internal Medicine [1]. Nevertheless, the boundaries between inpatient and outpatient medicine are gradually fading away. Internal medicine is the classical ''link discipline'', providing primary and expert care in the hospital and, in many European countries, also in the outpatient setting [2]. Hospital internal medicine should work with primary physicians warranting a continuum of care for patients who are very weak and who have complex conditions. Unfortunately, in recent years, Italian national health system experienced continuous cuts of hospital beds without parallel development of alternative care pathways outside of the hospital. So, internal medicine wards are always crowded (>80 % of their patients come from the emergency department (ED) and a large number of patients, admitted to internal medicine, in absence of available beds, are temporarily placed in other wards with a subsequent suboptimal care. The current scenario includes long queues in the ED quick, stressful and risky turnover in wards and out of hospital primary care family physicians uncomfortable with the elderly patients affected by multiple pathologies. Too often, unfortunately, the extensive and difficult but hidden work of internists is not adequately recognized by institutions or even within the internists community, which do not know well how they work and what kind of activities they carry out. The Ligurian internal medicine group performed a survey about activities and tasks of hospital internal medicine wards of the region. The Preliminary and partial results are briefly reported.

A 28-item questionnaire was sent by email to the heads of 18 Ligurian non-university internal medicine wards at the end of 2012 (collecting data about 2011).

Topics were: number of beds and physicians, number of admission per year and mean DRG weight, mean length of stay and bed turnover rate, progressive care organization, number and kind of outpatients activities, clinical competencies, and equipment. The most interesting questions and answers of the survey are listed in Table 1.

One of the most impressive results is that, independently of the beds number, in any hospital, internal medicine wards (IMWs) are overcrowded with occupancy rates that are often, 100 % (although the safety treshold is 85 %). The practice of having patients, admitted to IMWs, but placed temporarily in other wards—so called "outliers"—is a frequent and recurrent phenomenon even when the mean LOS of the ward is lower than regional average (7 vs 10 days).

Physicians are plentiful enough if we refer to the past law about hospital standards; only in 33.3 % of interviewed wards is there a doctor for more than 6.4 patients. This law dates from 1988 (Donat Cattin law) and considers internal medicine and general surgery as general wards providing internal medicine wards with 5 doctors and 17 nurses for every 32 beds and further 3 doctors for every 32 additional beds. Currently, not only in Liguria, Internal medicine, because of the epidemic of acute on chronic diseases, receives unstable patients who need close monitoring and

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**Table 1** The most interesting questions and answers of the survey

| Question | Answer |
| --- | --- |
| How was the doctors:beds ratio in your ward? | 33.3 % of the interviewed wards are over the standard (1 doctor every 6.4 patients) |
| How many outpatients clinics does your ward have? | The interviewed chiefs reported a variable number of outpatients clinics from a minimum of 3 to a maximum of 9 |
| Which outpatient clinics are carried out by your physicians? | The most common outpatients clinics were: internal medicine, hematology, hypertension, endocrinology and rheumatology |
| What were the most frequent pathologies admitted to your ward? | Lung and heart diseases, followed by infectious diseases |
| Is your ward autonomous with the following[a] procedures? | 80 % of the wards included in the sample perform autonomously abdominal, vascular and heart US; 67 % non-invasive ventilation |
| How many of your physicians are able to perform autonomously the following[a] procedures? | The proportion of physicians autonomous in performing the different procedures is variable from one ward to another |
| | The most commonly performed procedures are bone marrow biopsy, vascular and internistic ultrasound scan, non-invasive ventilation |

[a] *List of procedures* thoracentesis and paracentesis, bone marrow biopsies, internistic ultrasound scan, vascular ultrasound scan, heart ultrasound scan, non-invasive ventilation, rachicentesis and other biopsies, chest drain insertion, abdominal drain insertion, Spirometry

frequent therapy adjustments. So IMWs are starting to define, internally, areas for high dependency care [3] in relation to the activities carried out. The recognition of high dependency areas in internal medicine wards is a way to improve quality of care, reduce clinical risk and rationalize costs, increasing resources where they really need. Nevertheless, they frequently surpass the time limit of 72 h of emergency medicine units in the goal of achieving better continuity of care. A randomized controlled trial established the effectiveness of such areas in internal medicine. Some authors compare performances of traditional intensive care units with lower technology 'Special Care Unit' managed by internists, supported by sub-intensive nursing. These units obtain comparable clinical outcomes (mortality, complications) and better value (economic cost, stay of hospitalization) than intensive care units. [2, 3]. In such a reality, the workload is much higher than the standards set forth in 1988, and the rotation of 5 doctors is obviously inadequate, if we consider rest days after night duty or Sunday shifts. This picture, complicated by the high turnover of patients that administrators, concerned by the LOS and over-crowded EDs impose on IMWs, was already depicted from the nurses' point of view in a recent publication by Palese et al. [4].

The survey shows poor standardization of care pathways with different beds turnover rates despite similar case-mix.

About competencies and skills, we find that in 80 % of the wards, included in the study, a variable proportion of physicians, up to 45 %, are autonomous in performing abdominal, vascular or cardiac ultrasound; in 67 % there are physicians able to deliver non-invasive ventilation. Also procedures such as placement of drains, biopsies and central venous accesses are being diffused among ligurian internists.

Organ specialists can help in the diagnosis and treatment of a single disease, but entrusting to such a superspecialist the entire management of a patient seldom solves the problem, in complex and comorbid patients. Moreover, it increases costs via multiple and repeated consultations.

In conclusion, IMWs are present in every hospital throughout the country, and they should be an important resource for the national health system as it is difficult to find all the internists' skills in other specialists. We expect that political deciders will plan future reorganization of health system to establish new priorities and standards. In this view, wider and further studies are needed to improve the awareness of the decision makers about Internal Medicine.

**Conflict of interest** None.

## Ligurian Internal Medicine group

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