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Hospital ambulatory medicine: A leading strategy for Internal Medicine in Europe

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ABSTRACT

Addressing the current collision course between growing healthcare demands, rising costs and limited resources is an extremely complex challenge for most healthcare systems worldwide. Given the consensus that this critical reality is unsustainable from staff, consumer, and financial perspectives, our aim was to describe the official position and approach of the Working Group on Professional Issues and Quality of Care of the European Federation of Internal Medicine (EFIM), for encouraging internists to lead a thorough reengineering of hospital operational procedures by the implementation of innovative hospital ambulatory care strategies. Among these, we include outpatient and ambulatory care strategies, quick diagnostic units, hospital-at-home, observation units and daycare hospitals. Moving from traditional 'bed-based' inpatient care to hospital ambulatory medicine may optimize patient flow, relieve pressure on hospital bed availability by avoiding hospital admissions and shortening unnecessary hospital stays, reduce hospital-acquired complications, increase the capacity of hospitals with minor structural investments, increase efficiency, and offer patients a broader, more appropriate and more satisfactory spectrum of delivery options.

1. Introduction

In the era of new discoveries and advanced technological inventions, health care is changing and we [internists] are on it. Successful research and innovation in recent decades have opened up new possibilities in both the treatment and the prevention of human sickness, increasing our life expectancy as never seen before. However, nowadays, not only people are living longer, but living longer with chronic diseases and, more importantly, increasingly becoming stakeholders in their own care journeys [1].

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As a result, ageing and chronicity are considered worldwide to be the successful consequence of these positive healthcare developments. However, increased life expectancy, chronic diseases, as well as new treatments, innovative technologies, and empowered consumers with greater expectations are also seen, by most systems, as the key drivers in the current growing demand in healthcare and the steady increase in associated costs; both of which threaten consumers and over-burden professionals, institutions and states [2–5]. Consequently, in the past decade, under pressure to balance the bottom line, sector administrators have been looking for ways to decrease costs, mainly by reducing hospital beds and staff. This phenomenon has resulted in greater than ever emergency department demands, inpatient access blocks, and hospital overcrowding, leading physicians to regard such problems with enormous concern and pessimism, and patients to put up with longer waiting times, delays, cancellations, and diversions, which negatively affect their safety and quality of care [6].

Along these lines, some hospitals have recognized that the lack of access to conventional inpatient beds for hospital admission is mainly a symptom of serious underlying operational problems, and not only an issue of resources. Therefore, to relieve pressure on hospital beds rather than simply increase the number of them, one smart suggestion has been to move delivery from inpatient to outpatient and ambulatory care, in order to avoid unnecessary hospitalizations.

The aim of this paper is to describe the official position and approach of the Working Group on Professional Issues and Quality of Care, from the European Federation of Internal Medicine – EFIM, to encourage national Internal Medicine societies to lead the implementation of hospital ambulatory management strategies across Europe. Of course, each country should take the following proposals into consideration in accordance with the working conditions in its particular health care system setting.

2. Key drivers of current health care inefficiencies

Given the consensus that the current collision course between growing demands, rising costs, and limited resources is unsustainable from staff, consumer, and financial perspectives, health economies and stakeholders are looking at how to improve quality, efficiency, and equitable care [7].

Although inefficiencies are in part related to the inherent demographic, financial, operational, and regulatory considerations of each health care system, four macro issues are framing this discussion in most European countries:

1) Over-reliance on hospital-based health, with avoidable inpatient admissions and hospital stays;
2) Fragmented care for people with chronic and long-term care needs, with unnecessary referral visits by multiple and uncoordinated staff clinicians and specialists;
3) Suboptimal information exchange between different healthcare providers, and especially between in- and outpatient care; and
4) Volume-based care, in which delivery and payment are focused on episodic care, and limited to seeing patients only when they become ill.

Therefore, the challenge for health care today is to focus on innovation to change the hospital model, implement integrated care and move from volume-based care to value-based health care, while working to improve quality (outcomes) and service (the patient experience) in the most cost effective manner [8,9].

3. Moving from inpatient to outpatient and ambulatory care

Currently, the most important change in this respect is related to progressive ageing of the population and the subsequent burden of chronic diseases. Chronic patients in this ageing population are known to be the largest consumers of hospital resources [2–5]. However, hospitalization in itself is a harmful process, leading to infections and other hospital-acquired complications such as persistent incontinence, venous thromboembolism, adverse drug reactions, or unplanned surgery and intensive care unit admission. Worryingly, hospitalization impacts to a greater extent in the geriatric population, in whom many geriatric syndromes, including pressure ulcers, falls, sleep deprivation, delirium, and functional decline, are the cause of significant morbidity, mortality, and resource utilization. Nowadays, systematic admission and readmission of elderly patients to acute care beds is highly questionable when current therapeutic guidelines clearly suggest that physicians should manage them in 'lighter' outpatient and ambulatory care facilities [10]. This may involve moving certain services that were traditionally provided in hospital into the community [11].

By bridging the gap between inpatient and non-inpatient care worlds, the implementation of an innovative range of hospital outpatient and ambulatory care services may avoid the need for inpatient admissions and traditional emergency department care. Furthermore, these alternatives to inpatient care may provide a more appropriate use of staff and cost-effective delivery, and patient care closer to home [12]. Therefore, although the need for inpatient care will not disappear, and many services will still require inpatient stays, hospital metrics will soon change accordingly, and thus be able to focus on assessing performance in population health management rather than inpatient admissions or visits.

4. Alternative strategies to conventional hospitalization

A wide range of non-inpatient care management strategies as alternatives to standard hospitalization have been proposed in recent years. All of them are hospital and community-based outpatient and ambulatory services for medical or surgical conditions, conventionally designed to require inpatient admission, which does not involve an overnight stay or multi-day stay in hospital.

These alternative strategies to inpatient hospitalization may optimize patient flow and relieve pressure on hospital bed availability by preventing avoidable inpatient admissions or shortening unnecessary hospital stays [13]. However, although many services currently delivered in the hospital settings can be provided safely and effectively in the community setting, this framework does not imply that all these non-inpatient services will be delivered outside of hospitals; some services will and should continue to be delivered in hospitals for reasons of patient safety, quality and efficiency.

To date, the most commonly reported strategies, units and services used as alternatives to inpatient care are: outpatient management, quick diagnosis units, daycare hospitals, same day surgery, hospital-at-home, observation units, post-acute care, sub-acute care, short-stay acute care, multidisciplinary chronic disease management, extended evaluation and treatment units, general practice after-hours clinics, and a wide range of community-based services (for mental health, children and adolescents, alcohol and drug abuse, dental care, cancer, rehabilitation, palliative care, and many others) [14–18].

Currently organized into different models of care, these options cover a wide range of care delivery from specialist services and tertiary level care through to preventive and primary care, and are collectively referred to as alternatives to inpatient care, alternatives to conventional hospitalization, ambulatory medicine, or non-inpatient care. The terms outpatient, ambulatory and community-based care are used sometimes interchangeably to describe care that takes place as attendance on a single day at a healthcare facility at a hospital, primary care, long-term care, or palliative care facility, at the patient's home or at a residential care setting.

5. Evidence-based reported experiences

Reference published studies testing the above-mentioned

alternatives to hospitalization are still very limited to date. Interestingly, a recent systematic review reported by Conley et al. reaffirmed the idea that alternative management strategies to inpatient care, for low-risk patients with a range of acute medical conditions, can achieve comparable clinical quality outcomes and patient satisfaction at lower costs than conventional hospitalization [19]. In this investigation, results of 25 systematic reviews, representing 123 primary studies, showed that for outpatient management strategies, several acute medical disorders had no significant difference in mortality rates, disease-specific outcomes, or patient satisfaction compared with standard hospitalization. Evidence was more moderate for quick diagnostic units, but low mortality and high patient satisfaction were demonstrated when compared with inpatient admission. For hospital-at-home, mortality and other quality outcomes, as well as for patients and caregivers, satisfaction improved or was no different to hospital admission when compared with a diversity of acute medical conditions. For observation units, several acute medical conditions were found not only to have decreased the length of stay with no difference in mortality, but improved patient satisfaction compared to inpatient admission. Across all alternative management strategies, cost data were heterogeneous but showed near-universal savings when assessed.

A perfect evidence-based example of these new models of care is also the reference report by Comín-Colet et al. [20]. In this experience, the implementation of a comprehensive community approach, based on alternative management strategies to hospitalization, reduced potentially avoidable inpatient admissions in patients with chronic heart failure. To ensure they are compliant with medical instructions after discharge and at every transition in care, a multidisciplinary team follows patients through the use of remote patient monitoring by phone calls and home telemedicine, as well as occasional visits at the outpatient clinics, the daycare hospital, and the primary care setting. Key components of this integrated model of care are discharge planning, early post-discharge review, and ambulatory care structured follow-up led by physicians and nurses specialized in alternative management strategies to hospitalization.

Despite the above-mentioned studies, additional evaluation still seems mandatory to validate evidence for efficacy and safety of some alternative management strategies for several medical conditions. Moreover, clinicians and administrators should adopt a collaborative approach to determine optimal patient eligibility criteria for every condition and strategy (including social factors) [19]. The WHO International Classification of Functioning, Disability and Health (ICF) could be used as the basis for determining the physical status of the patient along with the WHO International Classification of Diseases (ICD). This would allow balance and homogenize the cost-effectiveness and the proportion of inpatient, outpatient and ambulatory care in the EU, covering cross-border factors [21].

6. Hospital ambulatory medicine: an opportunity for Internal Medicine

In line with the view that hospitalization can be considered suboptimal care for many patients, avoidance of hospitalization it might be currently regarded as a quality improvement process. Accordingly, some smart healthcare organizations are beginning to change their mindsets and align differently. By doing so, the implementation of hospital ambulatory alternatives to inpatient care really means strategically opting to avoid unnecessary hospital stays by bridging the gap between inpatient and non-inpatient worlds.

Internal Medicine specialists are probably the best placed physicians to lead this strategic change, and should see this issue as an opportunity and not a loss [12]. Internists are proficient in ageing and chronic illness — no matter how common or rare, or how simple or complex – and experts in health promotion and disease prevention as well [22–24]. Therefore, internists are highly skilled at managing patients by keeping them out of inpatient settings, when clinically appropriate, with improved or equivalent efficacy, quality, safety, and patient satisfaction compared to hospital admission.

7. Conclusions

In summary, managing the critical reality between growing healthcare demands, rising costs, and limited resources is an extremely complex challenge for most health systems worldwide. At the hospital level, clinicians and administrators must face this issue in collaboration, leading to a thorough reengineering of hospital operational procedures. In this setting, internists should consider an opportunity to lead a change in their traditional operational procedures by moving to the implementation of innovative hospital ambulatory care strategies, as alternatives to traditional ‘bed-based’ inpatient care. Among these, we include outpatient and ambulatory care strategies, quick diagnostic units, hospital-at-home, observation units and daycare hospitals. This change will optimize patient flow, relieve pressure on hospital bed availability by preventing avoidable inpatient admissions and shortening unnecessary hospital stays, increase the capacity of hospitals with minor structural investments, increase efficiency and offer patients a broader, more appropriate and more satisfactory spectrum of solutions.

The European Federation of Internal Medicine (EFIM) Working Group on Professional Issues and Quality of Care encourages national internal medicine societies to lead a change in creating hospital ambulatory management strategies in order to avoid unnecessary inpatient admissions, increase education on these issues, support the appearance of internal medicine leaders and act at hospital, regional and national levels to advocate hospital ambulatory medicine and promote internists as the best placed specialists to implement it.

Conflict of interests

The authors have no conflicts of interests to declare relating to this manuscript.

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