History, Principles, and Policies of Observation Medicine

Michael A. Ross, MD[a,*], Michael Granovsky, MD, CPC[b,c]

KEYWORDS

• Emergency medicine • Observation medicine • Observation units • Health policy

KEY POINTS

- The history of observation medicine parallels the rise of emergency medicine over the past 50 years to meet the needs of patients, emergency departments (EDs), hospitals, and the US health care system.
- Type 1 protocol-driven observation units are best managed using 7 basic principles. These units have consistently been shown to provide better outcomes than traditional care for selected patients.
- The growth of observation medicine has been driven by innovations in health care, ongoing shift of patients from inpatient to outpatient settings, and changes in health policy.
- To fully understand observation medicine, it is important to understand observation services payment policy, history, and ramifications.

Leave nothing to chance, overlook nothing: combine contradictory observations and allow enough time…A great part, I believe, of the art is to be able to observe.
—Hippocrates 410 BC

A BRIEF CLINICAL HISTORY OF OBSERVATION MEDICINE

The act of observing patients is not unique to the present. Observation has been fundamental to the care of patients since the time of Hippocrates, when he argued that understanding the nature of the humans and disease processes was best achieved through the active observation of their condition. This new approach,

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[a] Observation Medicine, Department of Emergency Medicine, Emory University School of Medicine, 531 Asbury Circle - Annex, Suite N340, Atlanta, GA 30322, USA; [b] LogixHealth, 8 Oak Park Drive, Bedford, MA 01730, USA; [c] Department of Emergency Medicine, George Washington University, Washington, DC, USA
* Corresponding author.
E-mail address: maross@emory.edu

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recorded in the Hippocratic Corpus, became the foundation of medicine as it is known today.

Jumping forward more than 2 millennia to the 1960s, the creation of EDs addresses a public health need. It was recognized that patients were dying of time-sensitive conditions, such as trauma and cardiac arrest, because they could not reach lifesaving experts and equipment soon enough — such as trauma surgeons, emergency physicians, operating rooms, and defibrillators. This led to the creation of emergency medicine, a new specialty whose defining feature was time rather than an organ system, age, or technology. EDs and emergency physicians specialized in the management of time-sensitive conditions. Between 1955 and 1971, ED visits increased by 367%.[1]

As EDs grew and became more differentiated, the first descriptions of observation beds appeared. In a 1965 edition of the journal, *Hospital Forum*, Lynn Boose, an administrative resident with the Bellflower California Kaiser Foundation Hospital, described "the use of observation beds in emergency service units" where it was recommended that an observation patient's stay "should not exceed 24 hours" based on his review of 1094 cases.[2]

Observation medicine research over the ensuing decades evolved along with innovations in health care.[3] In the 1970s, studies focused broadly on the use of short-stay units in EDs.[4] This focus continued in the 1980s with an increasing focus on specific conditions, in particular chest pain.[5,6] Studies explored other clinical areas, such as pediatrics, geriatrics, trauma, asthma, and abdominal pain.[7–9] The prevalence and scope of ED observation units (EDOUs) were described.[10,11] The 1990s saw high-quality observation medicine research flourish with federally funded prospective randomized clinical trials.[12–14] Chest pain research refined patient selection and diagnostic testing using the term, *accelerated diagnostic protocols* (*ADPs*).[14] Chest pain protocols in dedicated units were reported to have better outcomes than inpatient admission in terms of shorter length of stays, lower costs, less diagnostic uncertainty, and improved patient satisfaction.[13,14] Similar findings were reported in accelerated treatment protocols for asthma with shorter stays.[15] In the new millennium, EDOU research addressed new conditions, including syncope, transient ischemic attack, and atrial fibrillation.[16–18] Studies described the role of observation for pediatric conditions, the elderly, and hospital operations.[19–22] In the second decade of the millennium, clinical research continued as health services research focused on the impact of observation medicine on hospitals, health systems, and health policy.[23–25] Studies further defined which chest pain patients may not need observation or advanced cardiac imaging.[26]

In parallel with these advances, clinical practice also evolved. The American College of Emergency Physicians formed an Observation Medicine Section and adopted policies for the management of observation units, stating, "(o)bservation of appropriate ED patients in a dedicated ED observation area, instead of a general inpatient bed or an acute care ED bed, is a 'best practice' that requires a commitment of staff and hospital resources."[27] In the early 1990s, chest pain centers, which usually included chest pain ADPs and dedicated beds, became more common.[28,29] To represent this group, the Society of Chest Pain Centers was formed and has accredited more than 1000 hospitals nationally.[30]

PRINCIPLES OF OBSERVATION MEDICINE

Observation care, like emergency care, is defined by time. Most ED visits occur in less than 6 hours, whereas the national average inpatient length of stay is approximately 4.5 days.[31,32] Hospitals are often penalized for patients whose inpatient length of