SYMPOSIUM: ALIGNING PHYSICIAN AND HOSPITAL INCENTIVES

## **Biographical Sketch**

Ernest Amory Codman, MD (1869–1940)

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**Abstract** This biographical sketch on E.A. Codman corresponds to the historic text, The Classic: A Study in Hospital Efficiency: As Demonstrated by the Case Report of the First Five Years of a Private Hospital (1918), available at DOI 10.1007/s11999-012-2751-3.

Ernest Amory Codman was born in 1869 in Boston, Massachusetts and died of malignant melanoma in a nursing home in Ponkapoag, Massachusetts in 1940 [11]. He had an illustrious but controversial career [1, 11]. While his book [7] and journal articles [3, 10] on the shoulder remain classics, perhaps his most lasting contributions arise from three interrelated ideas: (1) following patients for the "end-result;" (2) establishing registries; (3) and establishing standards for hospital practice.

The notion of the end-result was perhaps first suggested in 1904 in a brief listing of cases [2] in which he commented, "If some arrangement could be made by which the house officer should see these late results, it would be very instructive for them, for I feel sure that the house officer in graduating from this institution gets a very much more favorable idea of the results of surgical operations than he is really justified in having" [11]. Codman pursued the idea of the end-result and developed methods of tracking patients. By the mid-1920s he had not only developed a refined process but could report considerable data on the end-result (of tumors) [5, 9] along with the description of a registry to track cases of tumors [6, 8]. Despite the vocal

opposition of his colleagues, Codman was convinced one needed to systematically track patients and follow them to learn the ultimate effects of operations; an idea no one would question today but one that had been radical to some in those days. Codman, however, could be blunt, and some of his colleagues found him offensive. In 1911, he resigned his full-time post at the Massachusetts General Hospital and opened his own small hospital (the Codman Hospital). He required that anyone using his hospital follow their own patients and use the end-result system [11].

Before and after the years in which he established his hospital, Codman realized the need for hospitals to have explicit ethical mission statements and to standardize certain practices (including fees). In 1910, at a meeting of the Society of Clinical Surgery in England, Codman and a colleague, Edward Martin, discussed the idea of forming an American College of Surgeons, intending the organization to promote the notion of the end-result [11]. Accordingly, they organized the Clinical Congress of Surgeons of North America in 1912, with the express purpose of subsequently organizing the College. Edward Martin then appointed Dr. Franklin Martin as head of a Committee of Standardization of Hospitals, who appointed Codman to the committee. One of the express purposes was to introduce "some standardization of hospital equipment and hospital work...to the end of these institutions having the highest ideals..." and "those [hospitals] of inferior equipment and standards should be stimulated to raise the quality of their work" [11]. The committee deliberated over the next year and published their first report in November 1913:

By what standards can we compare hospitals? It is obvious that there are many. There may be a standard of architecture, of cleanliness, of kindness to patients, of nursing, of medical education, etc. To some



Fig. 1 Ernest Armory Codman is shown at a young age.

persons the per capita cost, the number of patients annually treated, the success of private practice of their medical and surgical staff, the quality of the scientific papers produced, or the up-to-dateness of the laboratories may seem the important elements. Some hospitals seem satisfied with the famous contributions to medical science which some member of their staff made a hundred years ago.... We believe... that even cleanliness, marble operating rooms, famous physicians and surgeons, up-to-date laboratories, and time-honored reputation do not necessarily mean that the individual patient will to-day be freed from the symptoms for which he seeks relief.... The more time we have spent on this subject, the more obvious it has seemed to us that the only firm ground on which we can compare hospitals is by the actual results to the individual patient.

Codman arguably became the most informed and powerful man in the country on the notion of standardization of hospitals. In this issue of  $CORR^{\textcircled{R}}$  we reproduce a portion of his 1918 book, "A Study in Hospital Efficiency: As Demonstrated by the Case Report of the First Five Years of a Private Hospital" [4], a comprehensive and candid

(some might say, "blunt"), 179-page report of his own hospital including brief abstracts of all treated patients, errors, deaths, standards, and a financial report (a copy of the full text is available online at DOI 10.1007/s11999-012-2751-3). He commented,

So I am called eccentric for saying in public:

That Hospitals, if they wish to be sure of improvement,

- 1. Must find out what their results are.
- Must analyze their results, to find their strong and weak points.
- 3. Must compare their results with those of other hospitals.
- Must care for what cases they can care for well, and avoid attempting to care for cases which they are not qualified to care for well.
- 5. Must not pretend that work which they do as a competitive business is Charity.
- 6. Must assign the cases to members of the Staff (for treatment) for better reasons than seniority, the calendar, or temporary convenience.
- 7. Must teach medical students ethics by example instead of by precept.
- 8. Must welcome publicity not only for their successes, but for their errors, so that the Public may give them their help when it is needed.
- Must promote members of the Staff on a basis which gives due consideration to what they can and do accomplish for their patients.
- Such opinions will not be eccentric a few years hence.

The symposium in this issue of  $CORR^{\mathbb{R}}$  is devoted to contemporary efforts to align the incentives of physicians and hospitals. Codman, well before others, believed in and fought for aligning the goals of hospitals and physicians, although he was proved wrong when he said, "Such opinions will not be eccentric a few years hence;" it took many decades before his ideas were accepted (begrudgingly, in some cases) and implemented.

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