Heroic Treatment

By James Morrison

Lithograph by James Morrison, circa 1850. Image reproduced courtesy of the Wellcome Library. Copyright © Wellcome Library, London.

Commentary

There is an amusing scene in the television series *Scrubs* in which J.D., a cheerful hospital doctor, gathers his interns in a huddle at the start of a day's work. "Hippocratic Oath on three," he orders, "one, two, three. . . ." In unison, hands atop hands, they exclaim, "first do no harm!"

This expression, or its Latin equivalent *primum non nocere*, is found neither in the famous oath nor in the Hippocratic corpus. The phrase, coined by Thomas Inman, dates from 1860, around the time of this lithograph.[1] The lithograph, depicting some unfortunate and clearly petrified patient, takes us back to a time when doctors, however benevolent in intent, often caused more harm than good.[2] James Simpson, an esteemed professor of surgery at Edinburgh in the mid-19th century, believed surgical patients in hospitals were "exposed to more chances of death than was the English soldier on the field of Waterloo."[3]

In 1850, a French physician, J. Dupuy, defended his doctoral thesis on limb amputation. He counted all amputations performed in a four-year period in his Bordeaux hospital and noted 94 amputations, 47 deaths, and a mortality rate of 50%.[4] Although buzzing with the advent of modern anesthesia (1846), which along with numbing pain allowed more time to operate, these were still the dark days before Lister and his antiseptic technique (Lister had a mortality rate of 45% for major amputations in Glasgow during 1864–1865; it dropped to 15% during 1867–1869 following the introduction of his antiseptic routine).[5(p89)] With such high risks, *primum non nocere* was sage advice. The phrase, however, needs to be refined.

Each time we attempt to benefit someone, in medicine or everyday life, we also risk harming them. We cook a sumptuous meal for friends, only to give them gastroenteritis, or utter a comforting comment to a depressed friend only to redouble their anxiety. Thus, any clinician who interprets *primum non nocere* literally ought to leave medicine, as benefiting patients often requires the infliction, or at least the risk, of harm. The surgeon cuts open the abdomen (harm) to remove the inflamed appendix (benefit). Ethicists thus talk of the obligation to avoid causing net harm. One translation might be *primum non in ultimum nocere* ("first, cause no ultimate harm"), but *ultimum* also implies "lasting harm," which is not accurate as some procedures are beneficial overall despite causing permanent damage. Hence, a neurosurgeon may excise a glioma, saving the patient's life, but at the cost of slight and permanently reduced motor function. More precise, though less pretty, would be *primum non plus nocere quam succurrere* ("above all, do not harm more than succor"). I somehow doubt J.D. and his interns would bellow such a phrase.

The lithograph's caption suggests that clinicians at the time were inclined to overtreat patients. Doubtless this was true of some, yet Dupuy's thesis reveals a clear appreciation of the seriousness of amputations, and of the need to balance the risks and benefits. He observes, "it is indeed a quite sudden transition which, in a matter of hours, deprives a man of an entire limb."[4(p15)] The issue of overtreatment is also pertinent in the early 21st century. I remember a meeting in a major Canadian hospital, in which a senior clinician read an interminable list of procedures performed on a recently deceased cancer patient. When he finally got to the end, he shook his head and said, "It's not easy to die in this hospital."

With ever-improving technologies and the corresponding ability to keep people alive, however dreadful their injuries and grim their quality of life, the question, "when should we stop aggressive care?" will be increasingly posed. When patients have capacity, a reliable way to ensure that a treatment's benefits outweigh the harms is to ask them directly, giving them accurate information about the alternatives, since what we value and how we balance different values vary amongst individuals. However, this approach cannot be applied when the patient is not autonomous. Advance directives, which allow us to know the autonomous wishes of now incompetent patients, and appointed proxy decision-makers, will become even more important as new tools and knowledge keep death at bay for longer and in more situations. At all times, we should be guided by what is best for the patient. While this may sound trite, the observation about the difficulty of dying in a state-of-the-art hospital suggests that on occasion we treat aggressively because we *can* rather than because we *should*.

This lithograph captures the horror of surgery at a time when mortality rates were sky high. It also coincides with a momentous development in medical thought: the realization in the community that medicine helped little and often caused more harm than good.[2] In my medical school, we sometimes ask prospective medical students at interview what they believe is the greatest advance in medicine in the last 150 years. This aforementioned realization, though an ideological rather than a technological or pharmacological breakthrough, would give antibiotics, vaccination, or imaging a run for its money. Although printed over a century and a half ago, the lithograph also prompts us to reflect on, and question, our current practices. Are we really doing more good than harm, and, if harm is inevitable, how can we benefit our patients with minimum harm? These are questions that, unlike the coats and cravats of the surgeons, will remain in fashion.

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References

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