In this talk I will shed new light on the invention of early modern precision instruments and their use in medicine. In particular, I will focus on the work of the Italian physician Santorio Santori (1561-1636) in the light of my recent discovery of a new source that provides crucial information on the practical use, composition of the experimental sample, and dimensions of instruments such as thermometers, hygrometers, pulsimeters, and precision scales, showing that they also had a normative purpose: the regulation of environmental factors affecting human health.