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Essay

Monitoring of national surgical care indicators in the Peruvian health system☆

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ABSTRACT

Surgical care is an integral component of healthcare services in all countries, and its quality is evaluated through monitoring of national indicators of safe surgical and anaesthesia care. In Peru, monitoring is only partial because of the lack of data regarding some of the indicators. However, there is a need for comprehensive monitoring in order to gain knowledge of the progress towards the healthcare goals proposed by the World Health Organisation and The Lancet Commission Global Surgery.

Monitorización de indicadores nacionales de atención quirúrgica en el sistema sanitario peruano

Palabras clave:
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RESUMEN

La atención quirúrgica es un componente integral de los sistemas sanitarios en todos los países, y la valoración de su calidad se realiza a través de la monitorización de indicadores nacionales de atención segura quirúrgica y anestésica. En Perú, esta monitorización se realiza de forma parcial, pues no hay información respecto a algunos indicadores. Sin embargo, debería ser integral para conocer el progreso de los objetivos sanitarios propuestos por la Organización Mundial de la Salud y la Comisión Lancet en Cirugía Global.

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Introduction

Surveillance in public health has used standardised measurements designed to quantify the cost of disease in a population, monitor mortality rates, and provide guidance to health systems. Maternal mortality (MM), infant mortality (IM) and life expectancy (LE) rates have been important indicators for measuring the effectiveness of healthcare services over a considerable time period. However, as a result of the increase in LE in the world, as well as the drop in MM and IM rates, other measurements such as surgical care have gained important when it comes to evaluating the health system.[1]

Surgical services are integral components of the public health system because they are part of the continuous primary care process. Although they have been recognised as a costly component, surgeries are performed in both affluent and precarious economic contexts alike.[2,3] In 2012, 312.9 million surgical procedures were carried out in the world[4]; however, information regarding frequency and safety of this care was severely limited by the lack of national data, considering that 70% of countries had no information on their national surgery volumes, and practically none attempted to value the allocation of surgical resources or the results.[1]

Peru was not an exception, because up until recently it did not monitor the main indicators on preparation, provision and effect of safe and affordable surgical and anaesthesia care for the population.[1,5] Some of the characteristics of the Peruvian health system are described below, followed by current considerations regarding monitoring of indicators and, finally, proposed measurements for comprehensive monitoring.

The Peruvian health system

A mixed system, it comprises two large sub-sectors, public and private, with different assets and sources of funding coming from tax collection (Ministry of Health – MINSA – with its offering of Comprehensive Health Insurance – SIS), social security contributions through taxation on active worker salaries (Social Health Insurance – EsSalud), and premium payments for private insurance. This results in a fragmented system with several weaknesses such as network overlap, inability to provide comprehensive care, and absence of complementary services and continuity of care.[6,7]

Timely access to essential surgery

Timely surgical care is the ability to receive rapid and appropriate care from a healthcare institution (primary care level hospital) within a two-hour period.[5,8] A segment of the Peruvian population lives at high altitude in the Andean region where access is difficult, but travel time to the closes healthcare institution (IPRESS) went down from 39 to 42 min (walking), and from 27 to 23 in motor vehicles, between 2011 and 2014.[9] However, these time periods were estimated for the total number of healthcare institutions, including many facilities without surgical care capability.

National surgical volume

According to the National Health Superintendency (SUSALUD), 613,396 surgical procedures (major and minor)[10] were performed in 31,151,643 inhabitants, for a rate of 1969 surgeries for every 100,000 inhabitants in 2015. The Lancet Commission on Global Surgery (LCGS) proposed that, by 2030, countries should be performing at least 5000 major procedures for every 100,000 inhabitants per year, given that it is the volume that correlates with several desirable health results such as a LE of 74–75 years, a MM rate of less than 100 women for every 100,000 live births, and the 143 million additional surgeries required worldwide in order to save lives and prevent disability. Moreover, this figure could be used for benchmarking surgical services and as a target for monitoring the execution of surgical care plans at a national level.[5,11,12]

Number of operating rooms

The total number of Peruvian healthcare institutions (IPRESS) that provide surgical care are already registered in an electronic database called the National Registry of Healthcare Institutions (RENIPRESS) belonging a SUSALUD, although there is no information on the number of operating rooms that are operational in each surgical service. This means that there are no data regarding the volume of surgical patients per operating room per year.[13] Only ESSALUD reported running 250 operating rooms at a national level, covering 10,754,665 affiliates in 2015.[14,15]

Density of surgical specialists

In 2014, there were 1382 specialists accredited as anaesthetists and 8804 accredited as surgeons (all surgical specialties).[16] However, in the Medical College of Peru (MCP) database, licensure figures for 2016 were 1706 anaesthetists, 6765 surgeons and 3055 obstetricians and gynaecologists,[17] accounting for a rate of 36.6 specialists for every 100,000 inhabitants in a total population of 31,488,625 inhabitants.[18] But this rate might be higher considering that many physicians graduating from residency programmes practice in different specialties without having yet obtained their professional degree, which is a pre-requisite for inclusion in the national MCP database of specialists.

There is a correlation between this density figure and the MM rate given that, for every 10 increment units there is a 13.1% (95% CI 11.3–14.8) reduction in the MM rate.[19] For this reason, the LCGS has emphasised the importance of achieving