

LETTER TO THE EDITOR

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Extreme maternal morbidity in a hospital in northern Peru

Morbilidad materna extrema en un hospital del norte peruano

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Dear Editor,

We commend the publication of the article "Extreme maternal morbidity at the Instituto Nacional Materno Perinatal of Peru: experience and results"⁽¹⁾. Extreme maternal morbidity (EMM) occurs in a woman who almost dies, but survives a severe complication during pregnancy, childbirth, or within 42 days postpartum^(2,3). It is also called extremely severe maternal morbidity or near-miss⁽⁴⁻⁶⁾.

The study⁽¹⁾ is based on data obtained from medical records between 2017–2023. The implementation in Peru of the EMM surveillance technical health standard occurred in 2021^(7,8) with comprehensive reporting starting in 2022⁽⁹⁾. Thus, analyses should begin from 2022. In addition, the EMM criteria in graph 3 include 2 that are not part of the criteria⁽⁷⁾, metabolic and vascular⁽¹⁾.

In 2022, the Hospital Regional Docente de Cajamarca (HRDC), a level II-2 referral center, reported 59 EMM cases treated, mean age 29.5 ± 8.1 years (range 15–48). Six maternal deaths occurred, attributed to appendicitis with septic shock, heart disease with severe pulmonary hypertension, hypovolemic shock due to uterine rupture, septic shock due to maternal miliary tuberculosis, and one case of eclampsia with HELLP syndrome and cerebral hemorrhage. Among the causes of MME, 27 were due to hemorrhage (45.8%), 21 due to preeclampsia with data of severity (35.6%), 6 to sepsis (10.2%) and 5 to others (8.5%), such as dengue, pancreatitis (Figure 1). There were 10 cases with severe HELLP syndrome (16.1%), 6 with eclampsia and intracerebral hemorrhage (10.2%), 3 with abortion (5.1%), 5 with ectopic pregnancy (8.5%), 3 with premature placental abruption (5.1%), 6 with placenta accreta spectrum (PAS) (10.2%), 2 with placenta previa (3.4%), among others.

The 2022 data show marked disparities in MME between HRDC, INMP, and Peru (Table 1). INMP had the highest prevalence of MME (26.1/1000 live births), followed by HRDC (23.5), both well above the national average (3.28). HRDC had the highest mortality rate (9.23%), reflecting the severity of cases, delays in care and deficiencies in critical management, in contrast to INMP (0.54%) and Peru (0.56%). The MME/MM ratio was outstanding in INMP (183.5), while HRDC reported worrying figures perhaps due to stricter criteria for defining MME and the complexity of the cases. These findings highlight the need to strengthen resources, training and protocols to improve maternal care in hospitals.

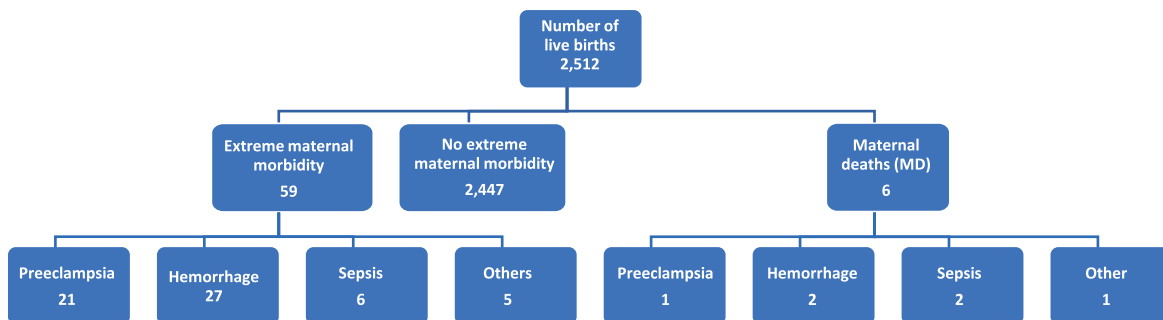


TABLE 1. EXTREME MATERNAL MORBIDITY IN HOSPITAL REGIONAL DOCENTE DE CAJAMARCA (HRDC), INSTITUTO NACIONAL MATERNO PERINATAL (INMP) AND PERU, 2022.

Extreme maternal morbidity indexes (EMM)	Formulas	HRDC (2022)	INMP (2022)	Peru (2022)
Number of live births (LB)	-	2,512	14,061	516,295 (9)*
Number of EMM cases	-	59	367 (1)*	1,692 (6)*
Number of maternal deaths (MD)	-	6	2	291 (10)*
EMM ratio (prevalence) (Goal < 8/1,000 LB)	(EMM/LB) * 1,000	23.5	26.1	3.28
Mortality index (fatality) (Goal < 4%)*	MD / (MD + EMM) * 100	9.23	0.54	0.56
EMM/MD ratio (Goal > 35) (8)*	EMM / MD	9.83	183.5	5.8
Mortality index due to preeclampsia (%)	MD (PE) / ((MD (PE) + EMM (PE)) * 100	1 / (2+1) = 4.54	1	-
Mortality index due to hemorrhage (%)	MD (H) / ((MD (H) + EMM (H)) * 100	2 / (27+2) = 6.90	0.5	-
Mortality index due to sepsis (%)	MD (S) / ((MD (S) + EMM (S)) * 100	2 / (2+6) = 25	1	-

*Data sources provided in references

FIGURE 1. EXTREME MATERNAL MORBIDITY (EMM) AND MATERNAL MORTALITY (MM) AT THE CAJAMARCA REGIONAL HOSPITAL-2022.



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Editor's Note: The above letter was sent to Dr. Enrique Guevara Ríos for information and purposes, and was answered as follows.

Dear Editor:

The Perinatal Information System of the Latin American Center for Perinatology (CLAP) and the Pan American Health Organization (PAHO) has the SIP NEAR MISS MODULE, which uses the maternal perinatal clinical history and includes, within morbidity, metabolic disorders such as diabetes mellitus and thyroid disorders, and in Other Disorders, deep vein thrombosis, pulmonary thromboembolism, which are vascular disorders. The National Maternal Perinatal Institute is the only hospital nationwide that uses the CLAP/PAHO maternal perinatal clinical history that allows its statistics to be compared with hospitals in Latin America. The Ministry of Health uses the SIP 2000 maternal perinatal clinical history, which differs from the CLAP/PAHO history and does not include metabolic or vascular disorders. For this reason, Peru cannot compare its maternal perinatal clinical history statistics with other countries in the region. This situation has been brought to Peru's attention for many years.

Sincerely,

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