LIFE-SAVING MEDICINES AND EQUIPMENT IN FACILITIES

Bangladesh has a health system with various levels of service delivery, from primary to tertiary facilities. Medical colleges and hospitals (MCH) and specialized hospitals make comprise the tertiary level. District hospitals (DH), mother & child welfare centers (MCWC) and upazila health complexes (UHC) comprise the secondary level, while the primary level is made up of union health & family welfare centers (UH&FWC), and community clinics.

Magnesium Sulphate (MgSO₄), a well-known, low-cost, and proven drug for managing pre-eclampsia and preventing eclampsia, and its antidote for toxicity, calcium gluconate, are two of 209 drugs listed on Bangladesh’s Essential Medicines List. The Ministry of Health and Family Welfare (MOHFW) has approved and circulated the EML throughout all tiers of the health system.

THE RESEARCH

This research brief is a part of a larger landscaping analysis by Population Council, with support from USAID and the MacArthur Foundation. In 12 upazilas in four districts, it assessed the capacity of primary health facilities to manage pre-eclampsia and eclampsia (PE/E). This brief shares findings from 134 facilities on required infrastructure for providing maternal and newborn health (MNH) services, human resources, facility readiness, and MNH commodities and supplies.

Recommendations

- Make standard guidelines and protocols for PE/E available in every health facility.
- Make job aids available to service providers for managing PE/E cases.
- Review, revise, print, and distribute existing ANC/PNC/delivery registers for better monitoring.
- Train providers, especially primary facilities providers, to use ANC/PNC/delivery registers.
- Stock MgSO₄ and calcium gluconate regularly.
- Train secondary and primary providers on diagnosis and management of PE/E.
- Advocate with manufacturers for easier administration of MgSO₄.
- Ensure all UH&FWCs have clean water and 24-hour electricity.
Facility usage and procurement of MgSO₄

MgSO₄ was found in only four secondary facilities, and in no primary facilities.

Only four secondary facilities reported use of MgSO₄ regularly, while another seven reported its occasional use. Those facilities that use MgSO₄ use intramuscular (IM) and intravenous (IV) routes for administration. It is important to note that three out of four MCWCs (75 percent) and five out of 11 UHCs (45 percent) never use MgSO₄.

Those who use MgSO₄ mentioned using various concentrations. Some reported use of 20 percent solution, while others reported use of 4 percent water/volume, 50 percent solution, or were unable to name the concentration used for administration.

Of the 11 facilities that use MgSO₄, six facilities (55 percent) get it from Central Medical Store of Drugs (CMSD) regularly or they purchase it from local markets. The remaining five facilities (45 percent) reported that clients purchase it from local markets when necessary.

Two pharmaceutical companies in Bangladesh manufacture MgSO₄ in 20 percent solution (1 vial contains 100 ml; 4 gm) and 50 percent solution (1 ampule contains 5ml; 2.47 gm). A loading dose of MgSO₄ for preventing pre-eclampsia from progressing to eclampsia and managing eclampsia requires 10 gm IM and 5 gm IM, respectively, in each buttock. To administer this, providers must break four ampules to get 10 gm MgSO₄ in two syringes. This makes administration very difficult for providers, who reported fear of giving the loading dose during emergencies.

Facility readiness is vital to providing quality services to ANC patients, especially to women with PE/E. Without functioning equipment, ANC/PNC registers, essential medicines, electricity, and running water, women are less likely to seek and receive services in a timely manner.