

Antenatal Care - How to ensure quality!

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Antenatal care (ANC) improves maternal and newborn health by providing a platform for important healthcare services, including health promotion, primary and secondary prevention by vaccination and screening, timely diagnosis & prompt treatment of various obstetrical and medical complications, which may arise or aggravate during pregnancy. Antenatal care substantially contributes to preparedness for labour and postnatal period¹. Healthcare workers should effectively communicate with pregnant women about their physiological, psychological, and sociocultural issues and provide medical, emotional, psychological, financial, and social support during this vulnerable period^{2,3}. Previously, the quality of ANC was assessed by the number of antenatal visits (ANVs) of a pregnant woman with healthcare providers (contact coverage), but now this indicator of the quality of ANC is no longer accepted because it measures contact frequency without looking into the content of the care received during ANVs. Discerning the true picture of ANC quality demands the details of each ANV about the four essential parameters including WHO recommended indicators, effective utilization of health services, doctors' performance, and patients' compliance⁴. WHO has published widely accepted recommendations for ANC, including suggestions for appropriate contact (frequency and timing between clients and the health system) and content (screening and management) based on evidence of effectiveness⁵. Measuring effective coverage of essential ANC interventions is more comprehensive than just counting the number of ANVs for assessing the ANC quality.

Conceptually, the effective coverage is "the proportion of the population who needs a service and receives it with sufficient quality for it to be effective"⁶. Therefore, it is important to comprehend that effective coverage, in the perspective of ANC, has two components: ANC attendance (contact coverage)

refers to total number of ANVs, and standard ANC content (effective coverage) refers to a set of interventions, which include WHO recommended indicators of history, examination, screening tests and managements at specified times during pregnancy^{7,8}. It is pertinent to add that effective ANC should ensure optimum fetomaternal health outcomes according to the available healthcare facilities.

In recent years, there has been growing interest in measuring the quality of ANC but there is no standard measurement system to categorize ANC into poor, average or good. Although several studies have incorporated various groups of indicators for evaluation of quality of ANC, only few studies have proposed categorization systems to objectively assess this important area of healthcare⁹. Even the proposed systems are insufficient for the global assessment of ANC quality. Therefore, a more comprehensive categorization system should be devised by using maximum indicators of WHO guidelines to assess the ANC quality and correlate it with fetomaternal outcomes, being the main goal of ANC.

Pakistan Demographic Health Surveys (PDHS) have shown a significant increase in the number of women having at least one ANC contact with a skilled healthcare provider. The contact coverage has improved with an almost 3-fold increase in ANVs i.e. from 26% to 86% as described in surveys of 1990-91 and 2017-18 respectively. On the other hand, there is only a 1.5-fold reciprocal decline in maternal mortality ratio during this period i.e. from 431/100,000 live births in 1990-91 to 186/100,000 live births in 2017-2018^{10,11}. A possible explanation for these disproportionate figures might be the lack of desired quality of ANC. Some of the major factors adversely affecting the ANC quality are the poor infrastructure of the healthcare system¹², lack of well-trained human resources¹³, insufficient preventive services¹⁴, and inefficient utilization of available resources at all levels. Lack of health awareness and poor compliance by

patients and their families are other major social contributors towards this grim situation¹⁵. Pakistan is still contributing 14.47% of the total maternal deaths in South Asia¹⁶. In this scenario, it becomes the professional responsibility of the public tertiary care hospitals to develop evidence-based strategies for improvement in ANC quality.

At Rawalpindi Medical University, the Department of OB/GYN is not only involved in teaching and training of undergraduates and postgraduate doctors but also provides obstetric care to a large number of complicated cases¹⁷. A study aimed at checking the quality of ANC in the department has recently been conducted and presented as an e-poster at RCOG Conference 2023. The quality of antenatal care was assessed in different dimensions by comparing the proportion of patients having an optimum number of antenatal visits, booking trimesters, effective screening for anemia, diabetes, hypertension, Hepatitis B & C, prophylaxis for tetanus, anemia and malnourishment, early diagnosis and prompt treatment of various obstetrical problems and the impact of these interventions on the fetomaternal outcomes. The study concluded that 15.8% of patients received good ANC, 71.4% received average and 12.8% received poor ANC. The women were broadly divided into 2 groups: Group A (≤ 3 visits) and Group B (> 3 visits) because the number of antenatal visits had a definite impact on the rate of early diagnosis and prompt treatment of medical disorders. Hypertension was picked up in 8% & 16%, while diabetes was diagnosed in 4% & 7% in Group A and B, respectively. Due to delayed diagnosis of high-risk patients in Group A, the LSCS rate was lower (33%) compared to Group B (40%), but it resulted in a higher rate of stillbirth (5% vs 2%), IUGR (2% vs 1%), PPH (3% vs 2%) and near miss patients (4% vs 2%) in Group A compared to Group B. In Group A, 14% were still anaemic at the time of admission in labour while only 8% were anaemic in Group B.

To conclude, improvement in the quality of antenatal care has a positive impact on pregnancy outcomes. Each healthcare facility must assess its quality of ANC, not only in terms of ANC attendance (contact

coverage) but also in terms of standard ANC content (effective coverage), in order to find out the deficiencies in services. This self-assessment will guide us for future improvement in standards of maternal and child health status in our country.

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