A Descriptive Study of Women Presenting to an Obstetric Triage Unit With No Prenatal Care

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Abstract

Objective: To describe women presenting to an obstetric triage unit with no prenatal care (PNC), to identify gaps in care, and to compare care provided to World Health Organization (WHO) standards.

Methods: We reviewed the charts of women who gave birth at Women's Hospital in Winnipeg and were discharged between April 1, 2008, and March 31, 2011, and identified those whose charts were coded with ICD-10 code Z35.3 (inadequate PNC) or who had fewer than 2 PNC visits. Three hundred eighty-two charts were identified, and sociodemographic characteristics, PNC history, investigations, and pregnancy outcomes were recorded. The care provided was compared with WHO guidelines.

Results: One hundred nine women presented to the obstetric triage unit with no PNC; 96 (88.1%) were in the third trimester. Only 39 women (35.8%) received subsequent PNC, with care falling short of WHO standards. Gaps in PNC included missing time-sensitive screening tests, mid-stream urine culture, and Chlamydia and gonorrhea testing. The mean maternal age was 26.1 years, and 93 women (85.3%) were multigravidas. More than one half of the women (51.4%) were involved with Child and Family Services, 64.2% smoked, 33.0% drank alcohol, and 32.1% used illicit drugs during pregnancy. Two thirds of the women (66.2%) lived in inner-city Winnipeg. Only 63.0% of neonates showed growth appropriate for gestational age. Two pregnancies ended in stillbirth; there was one neonatal death, and over one third of the births were preterm.

Conclusion: Most women who present with no PNC do so late in pregnancy, proceed to deliver with little or no additional PNC, and have high rates of adverse outcomes. Thus, efforts to improve PNC must focus on facilitating earlier entry into care. This would also improve compliance with WHO guidelines for continuing care. Treatment protocols could improve gaps in obtaining urine culture and in Chlamydia and gonorrhea testing.

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Résumé

Objectif : Décrire les femmes qui se présentent à une unité de triage obstétricale sans avoir reçu de soins prénataux (SPN), identifier les lacunes en matière de soins et comparer les soins offerts aux normes de l'Organisation mondiale de la santé (OMS).

Méthodes : Nous avons analysé les dossiers des femmes ayant accouché au *Women's Hospital* de Winnipeg et y ayant obtenu leur congé entre le 1er avril 2008 et le 31 mars 2011, ce qui nous a permis d'identifier les femmes qui avaient obtenu moins de deux consultations SPN ou dont les dossiers s'étaient mérités le code ICD-10 Z35.3 (SPN inadéquats). Trois cent quatre-vingt-deux dossiers ont été identifiés et les caractéristiques sociodémographiques, les antécédents en matière de SPN, les explorations et les issues de grossesse ont été consignés. Les soins offerts ont été comparés aux lignes directrices de l'OMS.

Résultats : Cent neuf femmes se sont présentées à l'unité de triage obstétricale sans avoir reçu de SPN; 96 (88,1 %) d'entre elles en étaient rendues au troisième trimestre. Seules 39 femmes (35,8 %) ont par la suite reçu des SPN et ceux-ci restaient en deçà des normes de l'OMS. Parmi les lacunes en matière de SPN, on trouvait l'absence de tests de dépistage dont la tenue à certains moments précis de la grossesse s'avère indiquée, de la mise en culture d'un échantillon permictionnel et de la mise en œuvre d'un dépistage de la chlamydiose et de la gonorrhée. L'âge maternel moyen était de 26,1 ans et 93 de ces femmes (85,3 %) étaient multigestes. Plus de la moitié de ces femmes (51,4 %) étaient suivies par les Services à l'enfant et à la famille, 64,2 % fumaient, 33,0 % consommaient de l'alcool et 32,1 % consommaient des drogues illicites pendant la grossesse. Deux tiers de ces femmes (66,2 %) habitaient les quartiers centraux de la ville de Winnipeg. Seuls 63,0 % des nouveau-nés présentaient une croissance correspondant bien à l'âge gestationnel. Deux grossesses se sont soldées en une mortinaissance; un décès néonatal a été constaté et plus du tiers des accouchements ont été prématurés.

Conclusion : La plupart des femmes qui se présentent sans avoir reçu de SPN le font tard au cours de la grossesse, en viennent à accoucher en n'ayant reçu que peu ou pas de SPN supplémentaires et connaissent des taux élevés d'issues indésirables. Ainsi, les efforts visant l'amélioration des SPN se doivent de chercher à permettre à ces femmes d'obtenir plus tôt accès à de tels soins. Un tel objectif entraînerait également une meilleure harmonisation avec les lignes directrices de l'OMS pour ce qui est des soins continus. La mise en œuvre de protocoles de traitement pourrait permettre de combler les lacunes en ce qui concerne la mise en culture de l'urine et le dépistage de la chlamydiose et de la gonorrhée.

INTRODUCTION

Although Manitoba has a universally funded health care system, previous studies have shown that there are significant disparities in the use of prenatal care throughout the province.[1,2] Areas with the highest rates of inadequate PNC are in the inner-city of Winnipeg and in northern Manitoba, with more than 16% of women in these areas receiving inadequate PNC.[1] More recent data support this trend; while the overall Winnipeg and Manitoba rates for inadequate PNC were 7.7% and 12.3%, respectively, certain areas of Winnipeg and Northern Manitoba had significantly higher rates, reaching 19.1% in Point Douglas and 41% in Nor-Man.[2]

Many factors have been linked with inadequate PNC, including high parity, low socioeconomic status, low education, young maternal age, non-married status, maternal smoking, and belonging to a minority ethnic group.[3–7] In Manitoba, neighbourhood-level effects have also been observed, with women being more likely to have inadequate PNC if they lived in areas with low average family income and high proportions of unemployment, recent immigrants, people claiming Aboriginal status, single-parent families, low education rates, and high rates of women reporting smoking during pregnancy.[1] Other factors shown to be associated with late presentation for PNC include ambivalence about pregnancy, late recognition of pregnancy, and negative perceptions of health care providers.[7,8]

Inadequate PNC has been associated with increased risk of adverse outcomes in pregnancy, including prematurity, low birth weight or small for gestational age, and fetal, neonatal, and infant death, as well as maternal death.[1,3–6,8] As part of their mandate to improve maternal and newborn health, the World Health Organization has published recommendations for routine care that should be provided to all women throughout pregnancy.[9] These recommendations include tetanus immunization; anemia prevention and control; syphilis testing; detection of complication, such as anemia, hypertensive disorders, bleeding, malpresentation, and multiple pregnancy; and birth planning.[9]

Women in inner-city Winnipeg have higher rates of inadequate PNC than women elsewhere, and some of these women are known to use the obstetric triage unit as their point of entry to care or their only source of care. Maximizing the care delivered at this point of entry is therefore a strategy that has the possibility of improving outcomes for these mothers and babies. The objectives of this study were to provide a description of this high-risk group of patients and to identify gaps in care that remained despite the PNC that was either provided or arranged at triage. For those women who received subsequent PNC, we wished to examine the types of investigations that were completed, as well as the total number of PNC visits obtained, and the remaining gaps in care. Given the increased risk of adverse outcomes with inadequate PNC, we also wished to examine pregnancy outcomes, such as inappropriate growth for gestational age, preterm birth, and admission to the NICU or intermediate care unit. While analysis of the barriers to accessing PNC is complex and outside the scope of this study, some previously identified barriers include limitations of personal resources, such as time, social support and finances, lack of transportation and childcare services, late recognition of pregnancy or denial of pregnancy, and negative perception of the importance, quality, or sensitivity of the care received.[3,10] Future studies to examine the barriers to care in this population may be warranted.

This study evolved as part of a larger program of research on inadequate PNC led by one of the authors (M.H.). The results of this study will guide development of more efficient strategies for providing adequate PNC to high-risk populations, thus minimizing existing health care inequities. This project will also provide baseline data to assess the effect of various strategies being implemented in inner-city Winnipeg to promote earlier and easier access to PNC.

ABBREVIATIONS

CFS	Child and Family Services
PNC	prenatal care

METHODS

We performed a retrospective chart review of obstetrical patients delivering at Women's Hospital in Winnipeg who were discharged between April 1, 2008, and March 31, 2011. Initially, charts within the study period were identified based on the ICD-10 code for inadequate PNC (Z35.3). As the use of this chart code does not undergo rigorous quality control checks at our centre, and in order to ensure that all relevant charts were selected, we also identified charts for women who were documented as having less than two PNC visits. The list of charts with less than two PNC visits was cross-referenced with the Z35.3 list to eliminate duplication.

In total, 382 charts were reviewed, and patient demographics, PNC history, and lifestyle and social factors including nutritional and housing concerns, stress, Child and Family Services involvement, use of drugs, alcohol, and tobacco,