



WHO Partograph Reduces Complications of Labor and Childbirth

Around 40 000 women die each year and many more are left with painful injuries as a result of obstructed or prolonged labor during childbirth. In addition, if obstructed labor is not dealt with promptly, the baby may either die or suffer asphyxia and the risk of brain damage. However, a 15-month study carried out by the World Health Organization among more than 35 000 women indicates that much of this suffering and loss of life can be prevented by using an inexpensive, simple chart called a Partograph. The study—the results of which were published in the medical journal *Lancet* (4 June 1994;334:1399–1404)—showed that the Partograph successfully distinguished labors requiring interventions from those that did not, which permitted appropriate management and reduced unnecessary interventions and their complications.

The Partograph is a simple chart to record the progress of labor and other essential fetal and maternal observations. The progress of a woman's labor, in particular the rate of dilation (or progressive opening) of the cervix and the pattern of contractions, is monitored and recorded

at four-hour intervals. Other observations, such as maternal and fetal heart rate, are made more frequently. Charting the observations allows midwifery personnel to determine if labor is progressing within normal parameters. If the labor is abnormal, its course will cross the "Alert" or "Action" lines printed on the chart, allowing potentially life-saving action to be initiated promptly. In a hospital, such action may involve administering drugs to improve the pattern of contractions to permit a normal delivery, or performing a cesarean section when necessary. If a woman has begun labor away from a medical center, the Partograph can indicate whether she needs to be referred to a facility equipped to deal with the complications of prolonged or obstructed labor.

In eight hospitals in Indonesia, Thailand, and Malaysia where the Partograph was tested, its use cut the number of prolonged labors by half, the rate of postpartum infections by over half, and the number of stillbirths by almost half, compared to the numbers observed in a study period immediately prior to the Partograph's introduction. In addition, the number of unnecessary interventions was reduced: fewer drugs were used, and fewer cesarean sections were performed on women without complications, with no adverse impact on the condition of the fetus.

Source: World Health Organization. WHO Partograph reduces complications of labour and childbirth. Geneva: WHO; 7 June 1994. (Press Release WHO/45).

WHO recommends that the Partograph and its management protocol be used in all labor wards that have facilities for managing complications of labor. In health centers without such facilities, the

WHO Partograph can also be used to rapidly identify labors for which referral may be required. The impact of the use of the Partograph in these settings is being evaluated in other research sponsored by WHO.



Technical Advisory Meeting Held on Newly Identified HIV-1 Subtype O Viruses

An informal consultation of 22 international experts was held on 9–10 June 1994 at WHO Headquarters in Geneva to discuss the implications that a newly identified subtype of the human immunodeficiency virus (HIV) may have for diagnosis.

HIV is characterized by a high level of genetic diversity. Two HIV types have been defined: HIV-1, which is pandemic, and HIV-2, which is more geographically restricted. Through statistical and phylogenetic analyses of HIV-1 gene sequences, a typing framework for HIV diversity has been established in which the HIV-1 variants are grouped according to specific gene sequences into at least eight subtypes, termed A through H. Recently, divergent HIV-1 viruses have been identified; they cannot be classified as any of the previously known HIV-1 subtypes and are designated HIV-1 subtype O ("O" denotes genetic "outliers"). The available sequence data from HIV-1 subtype O viruses are limited at this time, but they suggest that diversity within the subtype O group may be as great as that

which exists among HIV-1 subtypes A through H.

To date, the majority of virus strains that have been classified as subtype O have been isolated from patients from Cameroon or from their sexual contacts. Recent preliminary studies in that country suggest that fewer than 10% of HIV-1 infections there are caused by subtype O strains. A few subtype O infections have also been reported in Gabon and France, but limited studies in several other African countries and Belgium have not found evidence of the presence of this subtype.

Until recently, it appeared that antibodies against all HIV-1 variants were readily detected by established anti-HIV assays. The ability of currently used assays to identify infection by HIV-1 subtype O has not yet been extensively studied, but the sensitivity of several different commercial anti-HIV screening kits was assessed using a limited number of viral samples. The assays evaluated were some of the most commonly used; they were representative of different test principles (competitive, indirect, sandwich, and agglutination tests) and employed various types and combinations of viral antigens (native and/or recombinant and/or synthetic oligopeptide). Approximately 50% of the assays detected antibodies in all

Source: World Health Organization. Technical advisory meeting on implications of the newly identified HIV-1 subtype O viruses for HIV diagnosis. Geneva: WHO; 24 June 1994. (Press Release WHO/50).