Collection devices for obtaining cervical cytology samples

26 February 2008

Longer-tipped spatulas (Aylesbury device) of various designs appear to be better for collecting endocervical cells than the commonly used Ayre spatula. The most effective combination appears to be cytobrush and an extended-tip spatula. Health-care workers will require training in the form of a one-day workshop to implement this intervention.

RHL Commentary by Vatanasapt V

1. EVIDENCE SUMMARY

The review attempts to find a suitable method of cervical cancer screening by comparing the advantages and the drawbacks of the currently available Pap (Papanicolau) smear devices.

The device used in the collection of the Pap smear is important. The review shows that the commonly used wooden spatula (Ayres spatula) to obtain cells from cervix is not the best device for collecting an adequate smear and to identify abnormal cells. The longer-tipped and narrower-headed wooden spatula called the Aylesbury device is found to be better for this purpose.

The search and review of the articles have been extensive. Meta-analysis of all the data has been done properly and the results are presented clearly.

2. RELEVANCE TO UNDER-RESOURCED SETTINGS

2.1. Magnitude of the problem

According to Parkin et al. (1) the cervix is the most common cancer in women in developing countries. In Thailand there were 5593 new cases in 1990 (2). The highest incidence has been found in Harare, Zimbabwe, where an Age-Standardized Rate (ASR) of 67.2 per 100 000 was found. In Thailand, the ASR is highest in Chiang Mai (29.7/100 000) followed by Khon Kaen (23.9/100 000). With the introduction of cervical smear screening programmes, there have been declines in the incidence as well as mortality rate of invasive cervix cancer over the past three decades.

2.2. Feasibility of the intervention
Since the Aylesbury or longer-tipped wooden spatula does not differ very much from the Ayre spatula, technically, the introduction of this device should not be a problem. There will be initial costs associated with switching over to the new device, but in the long run it would not be difficult to manage this change.

### 2.3. Applicability of the results of the Cochrane Review

The most commonly used Ayre spatula is readily available throughout Thailand in almost all hospitals and clinics. The longer-tipped and narrower-headed Aylesbury device which was found to be better device can be introduced in place of the Ayre spatula.

Although all of the trials included in the Cochrane Review were conducted in industrialized countries the results of the review are equally applicable to developing-country settings.

### 2.4. Implementation of the intervention

In Thailand, switching over to the Aylesbury device will probably initially result in some difficulty as there will be a need to convince health workers about the advantages of the new device. Training through, for example, one-day workshops may be needed for health-care workers nationwide. This training should also include the technique of transferring the smear from the spatula to the slide. The importance of follow-up with colposcopic examination should be stressed. Some doctors who do not understand the screening process may be afraid of higher workload and may need more convincing than other health workers.

### 2.5. Research

The main problems related to cervical cancer screening in under-resourced settings is the lack of availability or accessibility of colposcopic examination and further treatment facilities for those who are found to be in need. The follow-up of a positive Pap smear or cervical dysplasia with further investigation has been found to be only about 50% (3). Therefore, it is almost useless to get the higher sensitive device and highly predictive value method but poor patient compliance or follow-up. Future trials need to address the problem of poor patient compliance and study methods to increase follow-up in women who have positive screening tests.

The effectiveness of Kato's device (4), which has been recently tested in rural Thailand for self-administered screening, should be compared with the more widely used screening devices both for efficacy and cost-effectiveness.

Source of support: Cancer Unit, Faculty of Medicine, Khon Kaen University, Khon Kaen, Thailand.

Acknowledgement: Pisake Lumbiganon, Faculty of Medicine, Khon Kaen University, Khon Kaen, Thailand.

### References
