Cervical Cancer Prevention FACT SHEET

ACCP Alliance for Cervical Cancer Prevention

Conclusions From ACCP Clinical Research in Developing Countries

Since 1999, the Alliance for Cervical Cancer Prevention (ACCP) has assessed innovative and alternative approaches to screening and treatment of precancerous lesions that are safe, effective, and acceptable and perform reliably in low-resource settings. ACCP projects have focused on regions in which cervical cancer incidence and mortality are highest—sub-Saharan Africa, Latin America, and South Asia—and on reaching women in their 30s and 40s (since many women in these regions may be screened only once or twice in their lifetimes). This fact sheet presents conclusions based on currently available ACCP clinical research data. It will be updated as additional final data become available.

Organized cervical cancer prevention programs

ACCP research findings suggest that it is possible to implement organized cervical cancer prevention programs in low-resource settings that will reduce the burden of disease—something that has not been achieved to date. In many settings, prevention programs can be integrated into routine health services assuming adequate financial and infrastructural support. ACCP projects in El Salvador, India, Kenya, Peru, South Africa, and Thailand have integrated cervical cancer screening services into existing primary health care services on a relatively small but increasing scale. Models using data from several of these projects suggest that broad application of these approaches will reduce cervical cancer mortality.[1,2]

Screen-and-treat approaches

ACCP studies have demonstrated that "screen-and-treat" approaches that eliminate a diagnostic step are safe, feasible, acceptable, and effective in low-resource settings. Screen-and-treat approaches using visual screening with acetic acid (VIA), visual screening with Lugol's iodine (VILI), or, potentially, human papillomavirus (HPV) testing can provide immediate results and, therefore, can allow all services to be provided in a single visit. (HPV testing currently is only possible in two-visit sessions.) These approaches—especially single-visit approaches—can enhance program effectiveness by increasing the number of screen-positive women who receive treatment and reducing loss to follow-up. In Thailand, for example, 98 percent of VIA-positive women accepted an offer of immediate treatment with cryotherapy; among treated women, there were no major complications—less than 5 percent of these women returned with questions or health concerns after treatment.[3] Data from South Africa corroborate these results,[4] pointing to a major paradigm shift in cervical cancer prevention.

Alternative screening methods

Regarding screening methods for precancerous lesions, ACCP data show that:

- HPV testing generally has better sensitivity and specificity than visual screening, and better sensitivity than cytology. While it is more objective and generally more accurate than other tests, current technical and infrastructural requirements can make HPV testing difficult to implement in low-resource areas.[5,6,7]
- The sensitivity of VIA is equivalent to or better than cytology; its specificity is lower.[5,8,9-12] VIA can be implemented in a range of settings; regular and consistent quality assurance is particularly important due to its subjective nature.[9-11,13,14]
- VILI may have better test performance characteristics than VIA.[12] Recent data suggest that VILI is at least as specific as and more sensitive than VIA.[12,13] This demands further research.
- In selected developing-country settings where infrastructure and quality assurance requirements are consistently met, cytology-based programs can be implemented effectively.[7,15]

Treatment methods for precancerous lesions

In examining the feasibility of different treatment methods for precancerous lesions, ACCP data show that:

- Cryotherapy is a safe and effective method and can be delivered by a range of health providers, including non-physicians.[3,4,11,16] Cryotherapy is generally less effective for severe lesions and those that cover 75 percent or more of the cervix and/or extend into the endocervical canal; in most single-visit programs, women with these types of lesions are referred for alternative treatment.
- Loop electrosurgical excision procedure (LEEP) can be safely provided by physicians in a range of settings.[11] Data on its effectiveness are forthcoming.

An ACCP-sponsored study in South Africa is evaluating whether there is an association between cryotherapy as part of a screen-and-treat approach and HIV

acquisition. Final data from this trial will be available at the end of 2004.

Ongoing studies to demonstrate impact

ACCP studies evaluating the use of visual inspection approaches or HPV testing for screening of precancerous lesions are ongoing. Within the next five years ACCP studies will:

- In India, demonstrate the impact on cervical cancer rates of screening with VIA, HPV testing, or cytology combined with treatment based on colposcopy findings.
- In South Africa, demonstrate the impact of a screen-and-treat approach using VIA or HPV testing on reduction of high-grade squamous intraepithelial lesions (HSIL).
- In Peru, demonstrate the impact of VIA followed by treatment based on the results from VIA with magnification (VIAM) on HSIL and cancer rates.

Screen-and-treat programs can be cost effective

Decision science modeling using ACCP data shows that screen-and-treat programs based on visual screening or HPV testing can be cost-effective approaches for preventing cervical cancer deaths.[1,2,17] In some circumstances, the model indicates that some single-visit approaches can be cost saving (the costs of implementing a program are less than the amount currently spent on caring for women with cervical cancer), in part because they eliminate costs associated with follow-up visits and loss to follow up. All programs maximize impact by screening and treating as necessary as many at-risk (older) women as possible.

Implementing rigorous research

ACCP studies have demonstrated that it is possible to implement randomized controlled clinical trials in developing countries that generate outcome data on the burden of cervical cancer. Ongoing trials in two sites in India and one in South Africa will provide rich data on the impact of programs using VIA, cytology, or HPV testing on precancer and cervical cancer rates.[4,7]

Summary

Overall, ACCP research, combined with research results from other groups, provides an evidence base that supports new approaches to cervical cancer screening and treatment. Data on the impact of programs on disease burden are forthcoming, and modeling results suggest these approaches to cervical cancer prevention will reduce disease incidence and mortality, even with once- or twice-in-a-lifetime screening.[1,2]

The potential availability of an effective HPV vaccine in the next five years adds additional hope to the field of cervical cancer prevention. Even when developing-country women have broad access to an effective vaccine, secondary prevention will remain a necessary component of any comprehensive cancer control program. Continuing to strengthen programs based on evidence from the ACCP and other groups will help to reduce the burden of disease from cervical cancer worldwide.

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