Preventive Treatment of Cervical Precancer: Past, Present and Future

Conventional Cryotherapy: Challenges and Limitations

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Track 1 – Stemming the Tide: Innovations in Prevention and Screening
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WHO Guidelines
Cryotherapy Treatment Effective and Safe for Treating CIN

• WHO recommends cryotherapy treatment for cervical intraepithelial neoplasia (CIN), cervical cancer’s precursor
  – Low rates of recurrence of disease
  – Adverse events extremely rare
Cryotherapy Has Advantages Over LEEP, Other Treatments in Low- and Middle-Income Countries

- Lack of major complications such as bleeding
- No anesthesia needed
- With brief training, frontline health care providers can apply cryotherapy
- Can be applied in basic, relatively remote settings
Primary Barrier to Cryotherapy is Lack of Gas

• Cryotherapy requires ongoing gas procurement
  – Ministry of health procurement processes are slow, complicated, and dependent on unreliable cash flow
  – Tank rental and gas refills are both costly
  – Gas tanks are bulky and hard to transport
• Quality of gas is variable; low-quality gas damages equipment
Uganda Assessment Shows Facilities Go Months Without Gas

- Interviewed health care personnel at 27 facilities
- Nine facilities (33%) reported periods of 2 weeks to 1 year without cryotherapy due to lack of gas in the previous year
- Factors cited for lack of gas:
  - Cost of gas
  - Delays within the public system for ordering and paying for gas

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Equipment Failures and Lack of Local Maintenance Infrastructure are Problems

- **Equipment failures are common**
  - In 2 years, 11 out of 12 units in Honduras have required repairs
  - Poor gas quality contributes to equipment decline

- **Support from manufacturer and local distributors is limited**
  - Limited geographic availability
  - Language barriers

- **Replacement parts and trained repair personnel are limited**
Equipment is Not Optimally Distributed

- Health systems lack efficient decision-making processes for distribution (and re-distribution)
  - Lack of understanding of demand
  - Little use of data in decision-making
  - Political and bureaucratic hurdles

PATH/Mike Wang
Lack of Providers Trained in Cryotherapy

- Personnel turnover
- Lack of training courses and resources for training
- Political and hierarchical resistance to involving nurses, midwives, and other non-physician personnel
- Competing demands on personnel time
Alternative Treatments are Needed

- Alternatives should share desirable characteristics of cryotherapy
  - Effective
  - Easy to use
  - Easy to train new providers
  - Minimal complications for patients

- Alternatives should overcome barriers to traditional cryotherapy
  - More efficient use of CO2, or non-gas-dependent
  - Easy to maintain equipment
Thank You

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