

# Treatment of Pre Cervical Cancer Lesions Using Thermocoagulation

## Experience from Tanzania

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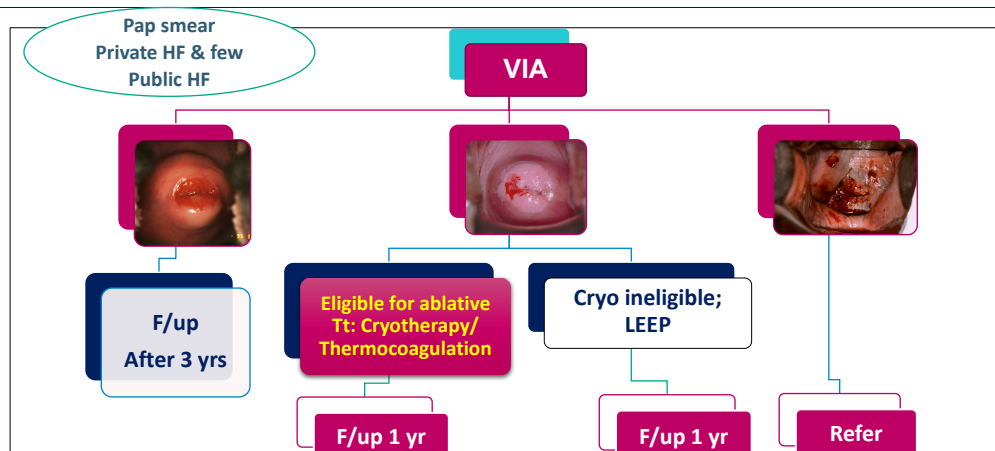
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### Screen and Treat Approach Service Delivery Model in Tanzania

Integrated into RH & HIV services: HIV clinic, FP, Post Natal, Gyn OPD

Package: Education, CC screening & treatment, BC Screening, PITC & linkage



•**Target group**: Women 30–50 years old

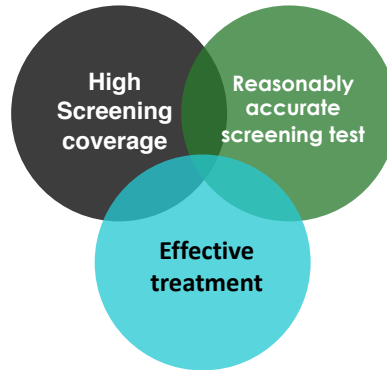
•**Primary level**: VIA & Cryotherapy + Clinical Breast examination

•**Referral sites**: Biopsy, LEEP, Mammogram, surgery, chemo & radio

•**Coverage**: Regional Hospitals, District Hospital and few Health Centre

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## Effective Secondary Prevention Program Elements



Complemented by Strong SBCC and Referral for Treatment of Invasive Cancer



## Treatment of Pre Cervical Cancer Lesions

Ablative	Excisional
Cryotherapy	Loop Electrosurgical Excision Procedure (LEEP)
Cold Coagulation/ Thermocoagulation	Cold Knife Conization
Laser ablation	Hysterectomy



## Screening and Treatment

- **Screen-and-treat' approach:** treatment decision is based on a screening test and treatment is provided soon/immediately after a positive screening test.
- Cryotherapy is a highly effective intervention with a good **cure** rate
- Challenge: availability of refrigerant gas (CO2 and N2O)
- **Thermocoagulation:** attractive alternative for the **treatment** of cervical **precancerous lesions**



## Evidence Thermocoagulation: three decades

total, the 13 papers described the efficacy of cold coagulation as observed among 4569 women with CIN1-3.<sup>4,15-19,23-29</sup> The remaining nine studies were not

**Meta-analysis of the efficacy of cold coagulation as a treatment method for cervical intraepithelial neoplasia: a systematic review**

**Conclusions** Cold coagulation CIN cure rates were comparable to those of other excisional and ablative methods. Cold coagulation is indicated for all grades of CIN, is safe, quick and acceptable, and may be of particular relevance for use in resource-limited settings.



## Malawi Study

The incidence of cervical cancer in Malawi is the highest in the world and projected to increase in the absence of interventions. Although government policy supports screening using visual inspection with acetic acid (VIA), screening provision is limited due to lack of infrastructure, trained personnel, and the cost and availability of gas for cryotherapy. Recently, thermo-coagulation has been acknowledged as a safe and acceptable procedure suitable for low-resource settings. We introduced thermo-coagulation for treatment of VIA-positive lesions as an alternative to cryotherapy within a cervical screening service based on VIA, coupled with appropriate, sustainable pathways of care for women with high-grade lesions and cancers. Detailed planning was undertaken for VIA clinics, and approvals were obtained from the Ministry of Health, Regional and Village Chiefs. Educational resources were developed. Thermo-coagulators were introduced into hospital and health centre settings, with theoretical and practical training in safe use and maintenance of equipment. A total of 7,088 previously unscreened women attended VIA clinics between October 2013 and March 2015. Screening clinics were held daily in the hospital and weekly in the health centres. Overall, VIA positivity was 6.1%. Almost 90% received same day treatment in the hospital setting, and 3- to 6-month cure rates of more than 90% are observed. Thermo-coagulation proved feasible and acceptable in this setting. Effective implementation requires comprehensive training and provider support, ongoing competency assessment, quality assurance and improvement audit. Thermo-coagulation offers an effective alternative to cryotherapy and encouraged VIA screening of many more women.

International Journal of Cancer ,2016

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## Cure Rate Following Thermocoagulation (Cold Coagulation): A Recent UK Experience

- 557 patients with CIN
  - 156 with CIN 1
  - 260 with CIN 2
  - 141 with CIN 3
- 1 year cure rate 95.7%
- Has a 1 year cure rate similar to that of LEEP

Parry-Smith et al., J Low Genit Tract Dis. 2015;19(1):17-21.

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## Efficacy of *thermocoagulation* in curing cervical cancer precancer lesions

	Total Number	Number assessed	Cured
CIN 1	1,272	539	471 (87.4%)
CIN 2	221	137	113 (82.5%)
CIN 3	121	95	79 (83.2%)

Source: Results from India, Bangladesh and Brazil



## Thermo-coagulation/Cold Coagulation

**Duration:** 20 - 45 seconds per application/Does not need anesthesia

**Indications** for treatment: similar to Cryotherapy

**Depth:** Can destroy tissues up to 4-7mm

### Manufacturers

	Cure Medical	Wisap	Medgyn
Price	\$1150	\$1820	TBA

Source: Systematic Review:DOI10.1111/1471-0528.12655



## Wisap C3: Thermocoagulator

### Technique

- **Outpatient** procedure
- No **anesthesia**
- **Target:** women who come for cervical cancer screening
- Perform VIA or Colposcopy; **confirm the white lesion/ size**
- Uses **heated metal probe** which is applied on the cervix and destroys abnormal cells at **temperature of 100-120 degree/C** in brief treatment application
  - The probe is connected to a machine -Semm Cold Coagulator
  - Cause ablation of cervical lesion by boiling
  - Leads to thermal destruction of cervical tissue
  - Allows punch biopsies to be undertaken



## Lessons from Introducing Thermocagulation Treatment: Tanzania

- Jhpiego supported introducing Thermocagulation Treatment in two regional referral facilities in Iringa and Njombe Regions
- Supported Regional, District, Facility Managers and Regional Trainers to conduct on site clinical mentorship in using thermocagulation \*C3 model
- **Duration of training:**
  - › 2 days (1 day didactic & 1 day clinical practice)
  - › Followed by 3 days outreach services to provide opportunity for strengthening competency of service providers
- **Participants:** clinicians and nurses with VIA, Cryotherapy skills

## Learning by doing



- Photo : **Simulation Practice**
- Nurse from Njombe RRH practicing how to perform Thermocagulation in the Classroom

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## Learning by doing



- Photo : **Simulation Practice**
- Learning by doing-HCPs and CECAP Program Managers in the classroom in Iringa RRH learning how to fix the machine and IPC related issues
- Trainer in between taking her role in mentorship

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## Important lessons learned

- **Thermocoagulation:** attractive alternative for the **treatment** of cervical precancerous lesions
  - › Portable and very user friendly devise
  - › Has minimal side effects and can be used by a range of health care providers
  - › Potential to take treatment closer to communities
- **On site competency building**—cost effective approach to build competency
- **It is more practical** and takes shorter time to train
- **Providers were very satisfied and happy with the device**
- **Client perspective:** acceptability was very high.

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## Few Quotes from Providers

- “Excellent tool-would wish not to use cryotherapy treatment machine any longer”
- “Easy to use tool more than cryotherapy treatment machine”
- “It takes a minute -you can treat a lot of women. Best tool for use in outreach services when electricity is available”
- “ I love this machines because of three features which are not available in cryotherapy machine-timer/light on and pre set treatment time you don’t need a watch to set the time. With current workload it is perfect for us”
- “I wish the Govt. would consider using this treatment machine all over the Country”
- “With this machine it will be easy for Regions and Program planners to scale up thermocoagulation treatment /VIA more easily”

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