New guidelines for cervical cancer prevention and control
WHO Mandate to Develop Norms and Guidelines

- WHO Member States rely on WHO for expertise and guidance with respect to cervical cancer control through the development of international norms and guidelines and promoting their implementation.

- The Guidelines Review Committee (GRC) was established in 2007 to ensure that WHO guidelines are developed in ways consistent with best practice.

- The second edition of the guidelines are comprehensively updated to take account of developments in screening, diagnosis, and treatment of cervical cancer.
Comprehensive approach: Programmatic interventions over the life course to prevent HPV infection and cervical cancer

**PRIMARY PREVENTION**
- **Girls 9-13 years**
  - HPV vaccination
  - From 10 years old and onward

Health education and services, for example:
- Sexual health education tailored to the age group
- Providing contraceptive counseling and services including condoms
- Prevent tobacco use and support cessation

**SECONDARY PREVENTION**
- **Women > 30 years of age**
  - Screening and treatment
    - “screen and treat” with low cost technology VIA followed by cryotherapy
    - HPV testing for high risk HPV types (e.g. types 16, 18 and others)

**TERTIARY PREVENTION**
- **All women as needed**
  - Treatment of invasive cancer at any age
    - Ablative surgery
    - Radiotherapy
    - Chemotherapy
WHO standards for cervical cancer prevention and control

http://www.who.int/reproductivehealth/en/
Sexual and reproductive health

Scaling-up services for cervical cancer prevention and control in low income countries is achievable

23 August 2012 - A demonstration project led by WHO in six African countries in collaboration with the Ministries of Health and the International Agency for Research on Cancer showed the feasibility of integrating visual inspection with acetic acid followed by cryotherapy as a “see and treat” approach to prevent and control cervical cancer in primary health care and reproductive health services. As a result each country involved has presented and started to implement a budgeted plan to scale-up these services nationwide.

— A demonstration project in six African countries: Malawi, Madagascar, Nigeria, Uganda, the United Republic of Tanzania, and Zambia
Strengthening Cervical Cancer Prevention Programme – Operational framework

PHC level

VIA

Community level

VIA

VIA

VIA

VIA and cryotherapy

Secondary level

Tertiary level

Palliative care

Awareness, Communication

Training

Monitoring and evaluation

Treatment
Strengthening Cervical Cancer Prevention Programme – New algorithm?

PHC level
- HPV

Secondary level
- HPV
- Cyto / colo and biopsies
- or VIA and cryotherapy

Tertiary level
- HPV

Community level
- Palliative care
- Communication
- Training

Monitoring and evaluation

Palliative care

Awareness, Communication

World Health Organization
Technical specifications for cryotherapy equipment

Technical specification for cryotherapy equipment

This manual addresses key issues that will ensure the procurement and effective use of quality assured cryotherapy equipment to support the early management of precancerous cervical lesions as part of a comprehensive cervical cancer prevention programme.

Contents:

• Technical Basis Paper. Cryotherapy equipment for the treatment of pre-cancerous cervical lesions
• Generic Specification. Cryotherapy equipment for the treatment of pre-cancerous cervical lesions
• Advice and guidance. gas supplies for cryotherapy treatment of precancerous cervical lesions
• Recommendations for handling gas cylinders
• Procurement guidance.
QA/QC for VIA-cryotherapy based programmes

Companion guides to (C4GEP)

Quality control and quality assurance for visual inspection with acetic acid (VIA) and for cryotherapy for cervical cancer prevention and control

Intended primarily for programme managers and other stakeholders working in health programmes for cervical cancer prevention and control.

Purpose

This guide focuses on quality control and quality assurance for VIA and cryotherapy, given that both have been extensively evaluated through cross-sectional studies, prospective randomized trials and demonstration programmes.

The recommendations provided in this document need to be adapted to national policies, health systems, needs, language and culture.
**Cervical cancer indicators**

**Performance indicators**

*Screening rate of the target population* (women aged 30–49 years): Percentage of women aged 30–49 years who have been screened for the first time with VIA in the previous 12-month period.

*Positivity rate*: Percentage of screened women aged 30–49 years with a positive VIA test result in the previous 12-month period.

*Treatment rate*: Percentage of VIA-positive women receiving treatment in the previous 12-month period.

**Result indicator**

*Coverage rate indicator*: Percentage of women aged 30–49 years who have been screened with VIA or another screening test at least once between the ages of 30 and 49 years.

**Impact indicator**

Cervical cancer age-specific incidence.
Purpose of the update

- Health education to be expanded
- HPV vaccines to be included
- New data on use of screening tests and algorithms
- New data on HIV and cervical cancer:
  - Natural history of HPV infection in HIV+ women
  - Age of first screening
  - Frequency of screening tests
  - Management of positive screening tests in HIV positive women (cryotherapy, LEEP) and follow-up, also safety issues
- HIV screening in women undergoing cervical cancer screening – how to incorporate?
Screen and Treat
### Which screening test for which population and where?

<table>
<thead>
<tr>
<th>Conventional pap smear</th>
<th>HPV DNA test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visual inspection with acetic acid (VIA)</td>
<td>Visual inspection with Lugol’s iodine (VILI)</td>
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<tr>
<td>HPV rapid DNA test</td>
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</tbody>
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**World Health Organization**
### Characteristics of screening tests for secondary prevention

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Conventional cytology</th>
<th>HPV DNA tests</th>
<th>Visual inspection tests</th>
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<tr>
<td></td>
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<tr>
<td><strong>Sensitivity</strong></td>
<td></td>
<td></td>
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<tr>
<td>for high-grade lesions and invasive cancer</td>
<td>47-62%</td>
<td>82-100%</td>
<td>67-79%</td>
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<tr>
<td><strong>Specificity</strong></td>
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<td></td>
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<tr>
<td>(for high-grade lesions and invasive cancer)</td>
<td>60-95%</td>
<td>75-96%</td>
<td>49-86%</td>
</tr>
<tr>
<td><strong>Comments</strong></td>
<td>Can be used in single-visit or 'see and treat' approach where outpatient treatment is available</td>
<td>Assessed over the last decade in many settings in developing countries</td>
<td>Assessed by IARC over the last four years in India and 3 countries in Africa. Need further evaluation for reproducibility</td>
</tr>
<tr>
<td><strong>Number of visits required for screening and treatment</strong></td>
<td>2 or more visits</td>
<td>2 or more visits</td>
<td>2 or more visits</td>
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</table>

FLOWCHARTS FOR SCREEN AND TREAT STRATEGIES WITH VIA

VIA

Negative
- Rescreen every 5 or more years
  - HIV+ rescreen before 3 years

Positive
- Eligible for cryotherapy, treat with cryotherapy
- If not eligible for cryotherapy, treat with LEEP
- Post-treatment follow-up at 1 year

Suspicious for cancer
- Refer to appropriate diagnosis and treatment
FLOWCHARTS FOR SCREEN AND TREAT STRATEGIES for HPV followed by VIA as triage

HPV

Negative
- Rescreen every 5 or more years
- HIV+ rescreen before 3 years

Positive
- VIA

VIA negative
- Rescreen after 1 year

VIA positive
- Eligible for cryotherapy, treat with cryotherapy
- Not eligible for cryotherapy, treat with LEEP

Suspicious for cancer
- Refer to appropriate diagnosis and treatment

Post-treatment follow-up at 1 year

World Health Organization
FLOWCHARTS FOR SCREEN AND TREAT STRATEGIES WITH HPV alone – VIA used to determine eligibility for cryotherapy

HPV

Negative
- Rescreen every 5 or more years
- HIV+ rescreen before 3 years

Positive
- Visual inspection with acetic acid
- 
  - Eligible for cryotherapy, treat with cryotherapy
  - Not eligible for cryotherapy, treat with LEEP
  - Suspicious for cancer: Refer to appropriate diagnosis and treatment

Post-treatment follow-up at 1 year
FLOWCHARTS FOR SCREEN AND TREAT STRATEGIES WITH HPV or cytology followed by colposcopy with or without biopsy

HPV or cytology

HPV negative or normal cytology
- Rescreen every 5 years or more
  - HIV+ rescreen before 3 years
  - If CIN 2-3, treat according to recommendations
    - If CIN 1 or less, rescreen every 5 years or more
      (HIV+ rescreen before 3 years)

HPV+ or ASCUS+
- Colposcopy
  - Colposcopy positive
    - Biopsy
      - Eligible for cryotherapy, treat with cryotherapy or LEEP
        - Post-treatment follow-up at 1 year
      - Not eligible for cryotherapy, treat with LEEP
  - Colposcopy negative
    - Rescreen every 5 years or more
      (HIV+ rescreen before 3 years)
  - Suspicious for cancer
    - Refer to appropriate diagnosis and treatment

If CIN 1 or less, rescreen every 5 years or more
(HIV+ rescreen before 3 years)
Overcoming the transfer and application of knowledge gap

To take evidence into practice
Scope of IR/OR

Any research producing practically usable knowledge (evidence, findings, information, etc) which can improve programme implementation (e.g., effectiveness, efficiency, quality, access, scale-up, sustainability) regardless of the type of research (design, methodology, approach) falls within the boundaries of operational research.

Jane Kengeya-Kayondo
IR/OR Can Accomplish the Following:

- Identify and solve programme problems in a timely manner
- Help policy-makers and programme managers make evidence-based programme decisions
- Improve programme quality and performance using scientifically valid methods
- Help programme managers and staff understand how their programmes work
A process to introduce and adapt guidelines and tools

Introduction and orientation (sub-regional level)
- National policies
- Practices
- Epidemiological data
- Resources

Situation Analysis
- Practices
- Epidemiological data
- Resources

Introduction and Adaptation (country level)
- Stakeholders and trainers

Implementation plan
- Key interventions
- Monitoring and evaluation

Scaling-up

Partners

World Health Organization

Advocacy and Adoption
Example of programmatic linkages: sexual and reproductive health services

**Existing services**
- Primary health care (PHC) services

**Proposed linkages**
- Family planning services
  - Antenatal care (ANC)
  - STI services
  - Cervical / breast cancer screening
  - VCT/PITC
  - BCC

**Expected outcome**
- Increased access to prevention and care
- Improved quality of sexual and reproductive health services

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§ voluntary counselling and testing (VCT); provider-initiated testing and counselling (PITC); behaviour change communication (BCC):