Impact of COVID-19 on Cervical Cancer Screening, Treatment and Vaccination

Online meeting

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marc.baay@p-95.com

HPV Prevention and Control Board

www.hpvboard.org

“If you want me to give you a two-hour presentation,

I am ready today.

If you want only a five-minute speech,

it will take me two weeks to prepare.”

Mark Twain

Context – COVID-19 impact

- >51M cases, >1.25M deaths
- 2021 likely to be similar to 2020, with restrictions still needed
- Impact on:
  - Hospital care
  - Screening programs
  - Vaccination programs
  - Clinical development (RCTs)
  - Supply chains (vaccines, tests, equipment, essential consumables, including protective gear)

  - Impact on cancer-risk behavior?

Context – Impact on HPV vaccination

- Routine vaccination coverage maintained; HPV vaccination coverage suffered
- Mass vaccination suspended, including school-based
- Re-direct to HC-facility-based vaccination; access may be biggest problem
- Outreach more impacted than fixed sites

Context – Impact on screening, treatment, RCTs

- Screening in most countries suspended, catch up in progress
- Success ROSE program = combination of self-sampling + HPV testing + digital communication, also works under social distancing
- Treatment FU window: cancer risk – within 2 weeks; high grade lesions – 3 months; low grade lesions - 6-12 months
- Development: 1-dose trials – delayed visits, missed visits, fewer visits per day, potential impact on sexual activity (= events), pre-COVID may not be appropriate to determine effectiveness
- Solutions: home visits, longer trial duration, recalibrate post-COVID

Context – Elimination goal

- 90-70-90 targets are ambitious, difficult balance between aspirational goals and realistic goals
- However, 90% vaccination coverage is lower than for other vaccinations, aiming for 95% coverage (e.g., Measles)
- 70% screening may be more difficult to reach than 90% vaccine coverage
- Due to COVID-19, retain goals but extend timeline?

Context – Modeling

- Data input – pre-pandemic status quo
- High quality data on incidence and mortality incomplete
- Outputs:
  - Quantification of inaction
  - Mitigation strategies
  - Silver linings
- In LMIC: 1 year delay of elimination goals results in 326,000 extra deaths (vax 150,000; sx 130,000, tx 50,000)

Context – Modeling

- In US:
  - 6 month delay – less impact on co-testing than on Pap (not true for 24 month delay)
  - If delay is only to screening, less impact
- Prioritize reintroduction of services, especially for women with Pap test only
- Global picture:
  - 100% disruption for 6-12 months, quick recovery possible
  - Age group 30-39 most affected. Despite potential vaccination
  - Higher risk if last test was Pap
  - Can be prevented if surveillance and TX is continued

Issues and challenges – short-term

- Health budget reoriented to COVID-19
- HC personnel reoriented to COVID-19
- Increase in poverty impacting health

Issues and challenges – mid- to long-term

- Speed versus safety in COVID-19 vaccine development: concerns may spill over to HPV vaccination
- Introduction of HPV vaccine can be construed as testing of new vaccine
- Economic effects may hamper HPV vaccine implementation

Opportunities

- All countries do tests for COVID, can later be used for HPV
- Innovative products; low-cost, rapid tests, instruments – repurpose for HPV
- Back to regular screening through risk-based prioritization: 1st screen, never-screened and WLWHIV
- Self-sampling
  - Sensitivity and specificity of SS vs clinician-sample similar
  - Robust to device, storage medium or dry swabs
  - Can be done on urine (preferred by women)
- GAVI innovation catalogue
  - Living document, starting point for discussion

Lessons learned

- Flexibility in terms of second dose of vaccine; 5 – 24 mo
- A 12 mo interval has logistic advantages; 1 visit/year
- Alternative schedule adaptation: 1 + 1 (5 year interval)
- Priming is crucial, interval can be considerably extended
- Teachers use WhatsApp to share reminders on (HPV) vaccination
- Multi-antigen campaigns to catch up missed opportunities
- Home-based working bigger impact than closing of schools
- HPV vaccination in Rwanda is success story; >90%, no vaccine hesitancy issues

Lessons learned

- Mismatch in HPV vaccine supply and demands, needs to be closely managed
- While India relies on non-inferiority data for licensure, China insists on efficacy data, adding 5 years to path to licensing
- Re. Modelling – data on indigenous people incomplete, more data needed
- If B/R is low, delay screening
- NL: screening is non-urgent care – promotion of self-sampling for all women, expected to decrease delay in screening
- BE: GPs providing SS kits to women leads to high participation rates (80%)

Lessons learned

- Outstanding technologies, good science but bad at communication – how to persuade women, governemnts, funders of the importance of cacx prevention
- Particularly for screening – women need to know why they are screened
- Sobering situation, cooperation is the only way out
- No buffering structure for screening (as for vaccines), with PAHO as potential exception
- Over 30 years, great efforts, great progress has been made, which could be valuable for COVID as well

The way forward

- Communicate with the Chinese FDA on composite endpoints (virologic, immunologic endpoints) which are widely accepted in the community
- If you can vaccinate whole populations against COVID, you can do the same for HPV (once the vaccine supplies are adequate)
- Need for +/- 10 PQ HPV tests to reach 70% screening target
- Solve regulatory and reimbursement aspects to make wide-spread introduction of selfsampling possible
- Validation necessary before wide-spread introduction of selfsampling is possible
- Simple to understand instructions on how to do self-sampling, using brochures, posters, verbal, YouTube video, etc. (examples from various countries and cultures are available)

The way forward

- Testing: too expensive. Sx with HPV detection, too much time
- Global pandemic, everybody needs testing -> cheap, fast testing. Technological drive redirected to HPV afterwards, room for optimism
- Excellent vaccines, too expensive. Covid demonstrated huge range of new approaches.
- Pandemic forced massive change, massive technological development

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Feedback welcome!

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