

New Vaccines in SA







Outline

- Regulatory Environment
- Registration of new vaccines
 - Childhood vaccines
- Clinical Trials Application procedures
 - HIV Vaccines
- Other new vaccines in development
- Challenges
- Ongoing Actions









Regulatory Environment

- Act 101 of 1965 (as amended)
- Establishes Regulatory Authority
 - All medicines must be registered for use in SA
 - Quality Safety and Efficacy
- Medicines Control Council (MCC)
 - Experts and stakeholders appointed by Minister of Health
- Expert Committees (Total=9)
 - Clinical, P&A, Biologicals, Clinical Trials etc.
 - Use Policies & Guidelines → Recommendations to MCC
- New Amended Act (SAHPRA) being implemented
 - Revise MCC and decision making
 - Enhance evaluation capacity
 - Include Medical Devices and diagnostics



Reg Environment

Childhood vaccines

Registration

Clinical trials

HIV vaccines

Challenges

Other vaccines



- The Biological Medicines Committee Appointed by the Minister of Health
 - Expert evaluators in
 - Clinical use of biological medicines and vaccines
 - Manufacturing and control of biological medicines
 - Public Health Immunization
- **Applications CTD dossier (Local Module-1)**
 - Evaluation reports peer reviewed by BMC
 - Queries to applicants consolidate report
 - Recommendation to MCC Approve or Reject
 - Post Marketing Risk Management commitment
 - Evaluation and approval of amendments
- Timelines variable
 - First response from BMC 12 16 weeks
 - Approval— usually 9 to 12 months

Reg Environment
Registration
Childhood vaccines
Clinical trials
HIV vaccines
Other vaccines

Challenges





Reg Environment
Registration & trials
Childhood vaccines
Clinical trials
HIV vaccines
Other vaccines
Challenges

- No local vaccine manufacturer
 - All imports
 - Local manufacture of DTP, OPV, BCG terminated by 2000
- Clinical development mostly outside SA
 - CTD dossier first sight for evaluators
 - Pilot IND-like procedure for local vaccine developers
 - New vaccine applications from Emerging manufacturers
- As new vaccines have become available
 - They have been registered
 - introduced into EPI when appropriate
 - NAGI & DoH decision.







Introduction of New Vaccines

Reg Environment Registration

Childhood vaccines

Clinical trials
HIV vaccines
Other vaccines
Challenges

- Childhood Vaccines Expanded Program of Immunization (SA)
 - Included DTP, OPV, Measles & BCG for infants in 1990s

| Hepatitis B sAg | (recombinant) | 1996 |
|-------------------------------------|---------------|------|
|-------------------------------------|---------------|------|

- Haemophilus influenzae B PRP-conjugate 1998
- Intradermal BCG2000
- Pentavalent DTP-HepB- HiB2010
- Rotavirus (Rotateq and Rotarix)2012
- Pneumococcal PS-conjugate2013
- Hexavalent DTaP-HepB-HiB-IPV2013
- Human Papilloma Vaccines (adolescents)2014
- Measles-mumps-rubella planned

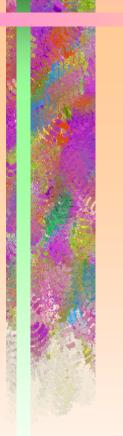




Reg Environment
Registration
Childhood vaccines
Clinical trials
HIV vaccines
Other vaccines
Challenges

- Clinical Trials Committee
 - Evaluates applications for individual trials (not IND)
 - Evaluates amendments to approved trials
 - Recommends approval to MCC
- Applications
 - Defined format policies and guidelines for applicant
 - Evaluation by expert peer review of reports by CTC
 - Follow SA GCP Guidelines (2006) and policies
 - Parallel process with
 - Ethics Committee approval required
 - GMO licence or other laws expected
 - Investigational products require Sect 21 Permit for import & use
 - Timelines: 1st Response from CTC 8 weeks. Approval 12-16 weeks



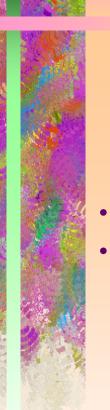


New Vaccines HIV vaccine development

Reg Environment
Registration
Childhood vaccines
Clinical trials
HIV vaccines
Other vaccines
Challenges

- HIV and AIDS are a major health challenge in SA
- State support for HIV-research includes
 - SAAVI SA AIDS Vaccine Initiative
- Vaccines are developed with international support
- Many HIV Trials conducted in SA since 1999
- MCC HIV Vaccine Task Group
 - Guidelines and policies 2003
 - Quality, Safety and ethical treatment of participants
- New and Novel Vaccines and regimens in trials
 - DNA-prime-boost, Vectored vaccines, novel adjuvants





Other New Vaccines

Reg Environment
Registration
Childhood vaccines
Clinical trials
HIV vaccines
Other vaccines
Challenges

- 19 new vaccine trials have been approved since Jan 2014
- Include
 - Pneumococcal conjugate vaccine in pregnant (HIV+) women
 - Meningitis PS-conjugate vaccines
 - Influenza vaccines new formulations and in pregnant (HIV+) women
 - TB vaccines modified BCG or MTb, Adjuvanted protein vaccines
 - HIV vaccines DNA, Vectors and adjuvanted proteins (Clade C)
 - HPV vaccines new formulations regimen
 - Rotavirus vaccines new formulation
 - RSV vaccines early development



HIV and TB vaccine trial sites are well established



Current Challenges

Reg Environment
Registration
Childhood vaccines
Clinical trials
HIV vaccines
Other vaccines
Challenges

- Each vaccine brings new challenges for MCC
 - Adaptive trial designs defined alternatives
 - Inclusion of adolescents and infants and pregnant women
 - Dose-escalation age-de-escalation
 - Inclusion of healthy HIV+ participants in vaccine trials
 - Calculations of power to detect AEs or protection
 - Lack of established correlates of protection
 - New immunological end-point tests unvalidated
 - Open-ended storage of clinical samples for future research
 - Clinical trial registry
 - Inspection of Trial sites GCP Guidelines and inspection policy
 - New vaccine applications from Emerging manufacturers





- Implementation of SAPHRA reduce uncertainty
- Strengthened NRA
 - Improved and updated policies and guidelines
 - Emergency and Pandemic vaccine approvals
 - Improved communications with public and industry
 - Increased staff levels and training more evaluators
 - Electronic document management system
- International and Regional cooperation
 - WHO, EU (EDCTP) and US FDA (DAIDS, NIH)
 - Developing Country Vaccine Regulators' Network
 - African Vaccine Regulators Forum
 - NGOs:- BMGF, AERAS, PATH, IVI
- Strengthened National Biologicals Control Laboratory
 Improved pharmacovigilance for vaccines use





Thank You

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And Colleagues from MCC

