



ARTEMISININ CONFERENCE, VIETNAM

RECAP OF DAY ONE DISCUSSIONS

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FOCUS OF HANOI CONFERENCE

- Need for increased and more reliable artemisinin production
- Need for better forecasts of ACT demand
- Better co-ordination between raw material supply chain and global initiatives to increase access to ACTs



KEYNOTE ADDRESS – Prof Tran Tinh Hien

ARTEMISININ RESISTANCE

- Resistance on Thai/Cambodia Border disturbing
- But is it true resistance?
- How far has it actually spread?
- What is the best approach to containment?
 - Stop spread of resistant parasites
 - Blanket coverage with ACTs
 - Clamp down on monotherapies
- Don't ignore the problem:
 - Alternative approaches needed - semi-synthetics, vaccine, new drugs
- But remember:
 - Chloroquine was useful for 20-30 years after resistant strains first appeared



ACT DEMAND FORECASTS (BCG, RBM, GFATM, UNITAID)

- Many uncertainties in demand and supply projections: global focus, needs to be broken down by country/region
- Data from multiple sources, many limitations
- Minimum 2 year cycle: demand forecast for 2013 needed now if it's to be useful
- What does a “binding forecast” actually mean?
- Would “rolling forecasts” be feasible and useful?
- Need for open communication throughout the supply chain



ARTEMISININ SUPPLY, COSTING, PRICING (RBM, OTECI/AEDES, Manufacturers)

- How to translate ACT demand forecast to supply of leaf, artemisinin, API, ACT funding available?
- Uncertainty re future of AMFm and future rounds of Global Fund
- 40-60% of orders placed have “emergency tags”
- Need to re-establish buffer stocks – what action is needed for this?
- What is an appropriate artemisinin price?
- Need for open communication throughout the supply chain



ARTEMISININ PRODUCTION

China, Vietnam, Madagascar, East Africa

- Countries expanding production in response to demand and current high prices
- Price fluctuations very difficult to cope with, panic buying exacerbates the problem
- Price forecasting helpful but it needs to be timely and realistic
- No more processors required: sufficient extraction capacity already
- Timely access to finance for leaf production and processing is critical
- Need to reduce leaf production cost through higher productivity
- Optimal balance needed between own production and contracted growers
- Wild leaf harvesting in China a problem – should be gap filler, not prime source



ARTEMISIA PRODUCTION - NEW DEVELOPMENTS: Mediplant, CNAP, East-West Seeds

- MEDIPLANT: trials continue on plant density, harvesting date, direct sowing vs. nursery planting. Results expected early 2012
- CNAP:
 - Moved from *Discovery/Development* to *Demonstration/ Delivery*
 - More than 100 hybrids field tested
 - Front runners identified
 - Seed available for distribution May 2012 (for 2013 planting in China)
 - Second generation hybrids ready for 2015 planting
 - Partnership established with East-West Seed
 - Questions of price, economic viability and manageability of new varr need to be discussed
- NIAB: good early experience but seed may no longer be available?



ARTEMISININ EXTRACTION AND PURIFICATION – NEW DEVELOPMENTS (Vedic, Kamtech, Warwick)

- **Vedic:**

- Silica gel extraction technology raises artemisinin recovery rate from 40/45% (traditional process) to 80/85%
- Requires a lot of gel but leaves almost no impurities

- **Kamtech:**

- HFC-134a extraction simple and robust technology
- HFC is a greenhouse gas but not ozone depleting
- High extraction efficiency and selectivity
- Low capital cost, ready to go

- **University of Warwick:**

- Continuous flow derivitisation of artemisinin
- Exothermic reaction
- Economic and environmental assessments being undertaken
- Looking for industrial partner to take to next stage



DAY 2: STILL TO COME

These questions to be further addressed in Break Out Sessions

Good Luck!