

MSF-SNAP Routine Viral Load Monitoring Procedures, Shiselweni, Swaziland 2013.

Box S1: Routine viral load monitoring and enhanced adherence counselling in Shiselweni, Swaziland, 2012-2013

Viral load laboratory and logistics

Whole blood samples in EDTA tubes are taken at the primary care facilities and centrifuged on site. The plasma is transferred to a second EDTA tube using a sterile transfer pipette, and then immediately refrigerated at 4-8°C. From there, the samples are transported twice weekly to the regional viral load (VL) laboratory in Nhlengano Health Centre. Testing is performed on a generic VL platform, commercialised by Biocentric, a real time, reverse transcriptase, Polymerase Chain Reaction (PCR) test suited to resource-limited settings. The technique has a detection threshold of 100 copies/ml on plasma, and takes four hours for analysis of 80 samples (with one amplification unit). The mean turn-around time from testing to receipt of result at the health facility is eight days; typically health facilities receive paper results the week after the sample is sent.

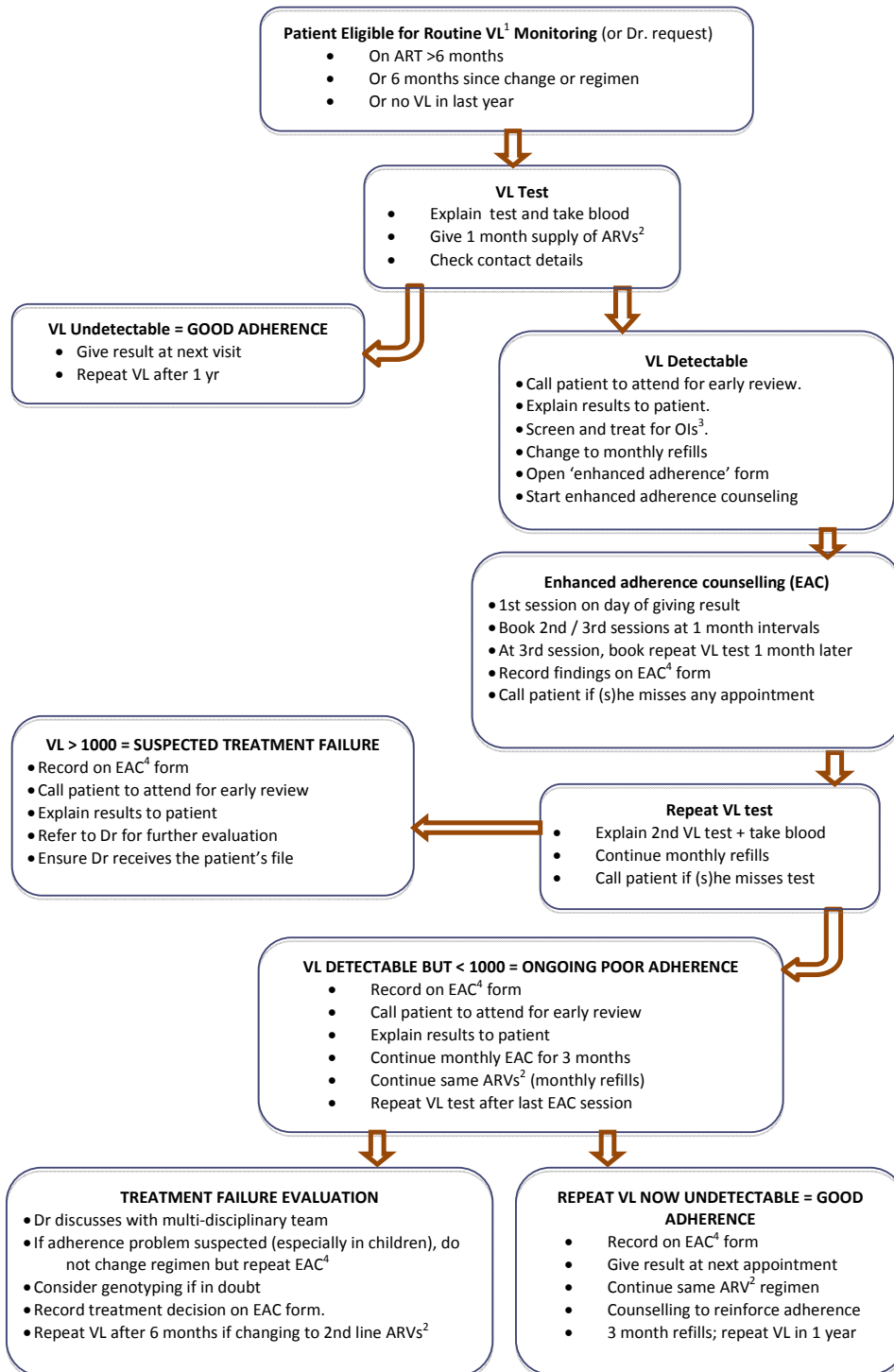
Clinical aspects of viral load monitoring

Eligibility for routine VL monitoring is defined as being on ART for a minimum of six months (early adherence test), and not having been tested in the previous twelve months (routine annual testing). Testing is provided on a daily basis, and is carried out opportunistically whenever eligible patients attend for routine appointments. A clinical algorithm outlines the procedures to be followed for managing patients with detectable or undetectable results, which includes active tracing (by phone) of patients who fail to attend follow-up appointments. This algorithm (Box 2) has been developed by MSF, adapted from WHO guidelines to fit with the Swaziland National ART Guidelines.³ To support this process, the laboratory issues all facilities with lists of patients overdue for testing or retesting, on a monthly basis.

Enhanced Adherence Counselling

Patients with detectable VLs are enrolled in enhanced adherence counselling (EAC). Although the Swaziland National AIDS Guidelines recommend this intervention, no guidelines or tools for providing this counselling had been developed prior to implementation of VL monitoring. Thus, a pilot EAC intervention was developed by MSF for the Swaziland setting. This is a problem-focused counselling approach, consisting of a minimum of three 30 minute sessions at monthly intervals, aiming at identifying barriers to adherence and ways of overcoming these barriers. In the case of legal minors (defined as under 16 years in Swaziland), the counselling is normally provided in the presence of the caregiver, unless the patient attends without a caregiver. All patients undergoing EAC are automatically re-scheduled to monthly drug pick-up (the standard in Swaziland is

Figure S1: Routine viral load monitoring and enhanced adherence counselling algorithm Swaziland 2013



¹VL = Viral Load

²OIs = Opportunistic Infections

³ARVs = Antiretroviral medications

⁴EAC = Enhanced Adherence Counselling