

# MALARIA (M) REGISTER

## 1. Technique of Preparation of Blood Smear




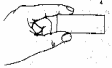


For preparation of blood smears following items are required:


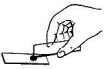
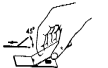

1. Clean glass slides
2. Disposable Lancet
3. Spirit or Cotton swab for cleaning the finger
4. Cotton
5. Clean piece of cotton cloth
6. Lead pencil

After the patient information has been recorded on the appropriate form, the blood films are made as under:

- Take a clean glass slide free from grease and scratches
- Clean the finger of the patient using a spirit swab

**Follow the following steps for preparation of the blood smear:**

	i. Select the second or third finger of the left hand
	ii. The site of the puncture is the side of the ball of the finger, not too close to the nail bed
	iii. Allow the blood come up automatically. Do not squeeze the finger.
	iv. Hold the slide by its edges
	v. The size of the blood drop is controlled better if the finger touches the slides from below
	vi. Touch the drop of blood with a clean slide, three drops are collected for preparing the thick smear.

	vii. Touch another new drop of blood with the edge of a clean slide for preparing the thin smear.
	viii. Spread the drop of blood with the corner of another slide to make a circle or a square about 1 cm
	ix. Bring the edge of the slide carrying the second drop of blood to the surface of the first slide, wait until the blood spreads along the whole edge
	x. Holding it at an angle of about 45° push it forward with rapid but not too brisk movement
	xi. Write with a pencil the slide number on the thin film, Wait until the thick film is dry. The thin film is always used as a label to identify the patient.

### REMEMBER

- The blood should not be excessively stirred. Spread gently in circular or rectangular form with 3 to 6 movements.
- The circular thick film should be about 1 cm (1/5 inch) in diameter.
- Allow the thick film to dry with the slide in the flat, level position protected from flies, dust and extensive heat.
- Label the dry thin film with a soft lead pencil by writing in the thicker portion of the film the blood slide number and date of collection

The lancet, cotton swab should be disposed off.

### 2. Technique for performing rapid diagnostic test

#### MATERIALS IN THE RAPID DIAGNOSTIC TEST KIT

1. Spirit (alcohol) swab (one for each patient)
2. Disposable Lancet (one for each patient)
3. Capillary tube (one for each patient)
3. Test strip (one for each patient)
4. One multiple well plastic plate
5. Test tube (one for each patient)

6. Buffer solution or reagent solution
7. Desiccant

## PROCEDURE

- Check that the test kit is within its expiry date. If not discard it. Read the instructions of the test kit, as there may be minor variations in the procedure between different kits. Place a small box, jar or bottle for trash next to the kit.
- Open a foil pouch and check that the desiccant inside it is still blue. If not, discard the test.
- Remove the test strip and the small glass tube or loop from the foil pouch and place them on a clean dry surface.
- Take out the buffer solution and the dropper. Place a new test tube in the multiple well plate.
- Clean a finger with the swab and let the skin dry completely in the air. Prick finger on the side with a lancet. Place lancet in trash container. Let a drop of blood come out on the skin.
- Touch the tip of the glass tube or the loop to the blood drop on the finger and let a small quantity of blood (a small drop) come up in the tube or the loop.
- Touch the tube or the loop to the test strip just below the arrow mark to place the blood there. If there is a paper, where Plasmodium falciparum is written, remove it and place the blood, where it was. Place tube/loop in trash container.
- Using the dropper, place 4 drops of buffer solution into a new test tube. After this, place the test strip containing blood in the buffer solution with the arrow pointing down. While waiting, a slide can be prepared.
- Observe after 15 minutes – if any red line does not appear in the test strip then the test strip is not working: discard it and use another one.
- If a single red line appears, it is not falciparum malaria. If two red lines appear, the test result is falciparum malaria.
- The test should be read 15 to 20 minutes after blood was taken. Earlier or later readings may lead to false results.
- Place test strip and test tube in trash container. Make sure this container is kept out of reach of children. When it is full, if in a village, bury it in the ground, or send it with the MPW to the PHC for safe disposal.

### 3. Age-specific Drug Schedules

#### 1. Chloroquine tablets (150 mg base)

Age (in years)	Day 1	Day 2	Day -3
	Tab. Chloroquine	Tab. Chloroquine	Tab. Chloroquine
<1	½	½	¼
1-4	1	1	½
5-8	2	2	1
9-14	3	3	1½
15 & above	4	4	2

#### 2. Primaquine tablets (7.5 or 2.5 mg base)

Age (in years)	<i>P. falciparum</i>		<i>P. vivax</i>	
	Primaquine 0.75 mg/kg on day 1		Primaquine 0.25 mg/kg daily dose for 14 days*	
	mg base	No. of Tablets (7.5 mg base)	mg base	No. of Tablets (2.5 mg base)
<1	Nil	0	Nil	Nil
1-4	7.5	1	2.5	1
5-8	15	2	5.0	2
9-14	30	4	10.0	4
15 & above	45	6	15.0	6

\* Primaquine is contraindicated in children under one year and pregnant women.

#### 3. Artesunate 50 mg tablets + sulfadoxine-pyrimethamine 500 + 25 mg tablets (ACT) combination

Age (in years)		1 <sup>st</sup> Day (number of tabs)*	2 <sup>nd</sup> Day (number of tabs)	3 <sup>rd</sup> Day (numbers of tabs)
<1 Year*	AS	½	½	½
	SP	¼	Nil	Nil
1-4 Yeas*	AS	1	1	1
	SP	1	Nil	Nil
5-8 Year*	AS	2	2	2
	SP	1 ½	Nil	Nil
9-14 Year*	AS	3	3	3
	SP	2	Nil	Nil
15 and above	AS	4	4	4
	SP	3	Nil	Nil

*\* till such time as age-wise blister packs are made available for all age groups*