Scene 1: Meet the Mpilo family …

Mother Mpilo’s blood samples are now being tested for blood group type. The common blood grouping system comprises A, B, O, AB and Rhesus (D) groups. Blood alcohol content, which is recorded in milligrams (mg) of alcohol per 100 ml of blood, is also being tested. These tests are being used to determine the pH (degree of acidity) of Baby Mpilo’s urine which will tell us whether she has an infection.

Scene 2: The Mpilo’s car accident …

Unfortunately, Father Mpilo has sustained serious head and chest injuries. He is undergoing a magnetic resonance imaging (MRI) scan to determine the nature of his injuries. We suspected that Mother Mpilo had broken a few of her ribs and therefore x-rays were taken, using a fluoroscope. The good news is that her ribs are only a little bruised!

Scene 3: At the hospital …

Hello! I’m Sam the stethoscope and I work in a hospital! I will be assisting you in learning about types of measurements in health and the importance of accurate measurements. First let me introduce you to the Mpilo family. They are about to go on a holiday trip in their motor vehicle. Let’s join them!

Scene 4: Being examined …

We can give Brother Mpilo medication for his asthma. We normally administer medication in required doses of quantity and volume (ml). This is being given to him through an oxygen mask. Oxygen (O₂) purity is important and an inflammatory injection was administered through the drip.

Scene 5: Scanning and X-rays …

Scene 6: In the ICU …

Father Mpilo’s body temperature reads 36.5 degrees Celsius (°C) on our thermometer. This is about 1°C above the norm. Luckily his blood pressure looks fine at 120 over 80 millimetres (mm) of Mercury. Brother Mpilo’s pulse rate is 75 beats per minute. He has put her on a drip containing 500 millilitres (ml) of saline solution.

Scene 7: Pathology …

Mother Mpilo’s blood samples are now being tested for HIV. We are also measuring the electrical activity of his heart using an electrocardiogram (ECG). The ECG shows the pattern of electrical activity in the heart muscle. It is important in order to administer the correct medication dosages.

Scene 8: In the regular ward …

At last! We can give Brother Mpilo medication for his asthma. We normally administer medication in required doses of quantity and volume (ml). This is being given to him through an oxygen mask. Oxygen (O₂) purity is important and an inflammatory injection was administered through the drip.

Scene 9: Dispensing and departing …

Hourly, somebody’s finally going home! The dispensary is kept under regulated temperature (°C) and humidity (% of dampness in the air). Looks like Baby Mpilo will be getting some syrup. Mother Mpilo some tablets and Brother will be getting his asthma pump. I’m sure glad that there are metrology institutions which ensure accurate measuring instruments. Can you imagine the impact if this wasn’t the case? Remember; keep your medication in a dry, cool place and away from children. Bye for now.