EXUBERANT KILIMANJARO MEDICAL FORM

Client's Name: ____ Age: __________

Route Name: _____________________ Days: __________ Guide's Name: ________________________________

		Pulse Oxi-meter		Lake Louise Scoring System (LLSS)						Other Assessments				
Campsite	Time	Oxygen	Pulse	**H**	**G**	**FW**	**DLH**	**DS**	**LLSS Score**	Appetite	Difficulty in breathing	Medication	Guide overall Assessment	Sign

GUIDE NOTES AREA

Key to Lake Louise Scoring System (LLSS):

1. **H** = Headache: No headache (0), Mild headache (1), Moderate headache (2), Severe headache (3)
2. **G** = Gastrointestinal symptoms: None (0), Poor appetite or nausea (1), Moderate nausea or vomiting (2), Severe nausea or vomiting (3)
3. **FW** = Fatigue and weakness: Not tired or weak (0), Mlid fatigue/weakness (1), Moderate fatigue/weakness (2), Severe fatigue/weakness (3)
4. **DLH** = Dizziness and light-headedness: Not dizzy (0), Mild dizziness (1), Moderate dizziness (2), Severe dizziness, incapacitating (3)
5. **DS**= Difficulty sleeping: Slept as well as usual (0), Did not sleep as well as usual (1), Woke many times, poor sleep (2), Could not sleep at all (3)

METHODS OF ASSESMENT

Acute mountain sickness (AMS) is the most common form of acute altitude illness and typically occurs in unacclimatized persons ascending to altitudes >2500 m, although it can develop at lower altitudes in highly susceptible individuals. Established risk factors include rate of ascent, altitude reached, and individual predisposition.

Finger pulse oximeter is a valuable, noninvasive, diagnostic tool for evaluation of ill individual at high altitude and is also being increasingly used to monitor the wellbeing of individual travelling on high altitude expeditions. It takes reading of oxygen saturation and pulse rate. Although the devices are simple to use, data output may be inaccurate or hard to interpret in certain situations. Thus, that's why we don't use Pulse Oximeter alone to determine AMS. The normal pulse rate, also known as the heart rate, varies depending on factors such as age, fitness level, and overall health. However, for adults, the normal resting heart rate typically falls within the range of 60 to 100 beats per minute (bpm). It's important to note that highly trained athletes or individuals with excellent cardiovascular fitness may have resting heart rates below 60 bpm, sometimes as low as 40 bpm. Here are the commonly used oxygen percentages and their corresponding saturation levels:

1. 95% - 100% Oxygen Saturation: Oxygen saturation levels within this range are considered normal and healthy for most individuals. It signifies that a high proportion of hemoglobin is carrying oxygen
2. 90% - 70% Oxygen Saturation: Oxygen saturation levels are generally considered lower than normal but may still be acceptable in certain situations. However, consistent or prolonged saturation in this range may warrant medical attention, especially for individuals with underlying respiratory or cardiovascular conditions.
3. 70% – 60% Oxygen Saturation: Oxygen saturation levels within this range are considerably low. Individuals may experience severe shortness of breath, confusion, dizziness, rapid breathing, and other signs of oxygen deprivation. Immediate medical intervention is necessary to stabilize oxygen levels and prevent further complications.
4. Below 60% Oxygen Saturation: Oxygen saturation levels below 60% indicate a critical state of profound hypoxemia. Individuals in this condition are at high risk of developing life-threatening complications, including respiratory failure, cardiac arrest, and organ damage. Immediate and intensive medical care, often in an emergency or critical care setting, is necessary to address the underlying cause, restore oxygenation, and support vital organ function.

The **Lake Louise Scoring System (LLSS)** is a widely used tool for assessing and diagnosing Acute Mountain Sickness (AMS) in adults. Each symptom is assigned a score, typically ranging from 0 to 3, based on its severity. The scores are then summed up to calculate a total LLSS score. A total score of 3 or more is typically considered diagnostic for AMS. The LLSS provides a standardized method to assess AMS symptoms and helps guide medical decision-making, such as the need for descent or treatment with medications like acetazolamide. The total AMS score would be the sum of scores for each of the five symptoms (Headache, Gastrointestinal, Fatigue & Weakness, Dizziness & Light Headedness, Difficulty in Sleeping). To be categorized as having AMS, one would need to have at least 1 point for a headache, and ≥3 points in total. *A severe headache of 3 point, with no other AMS symptoms, would also be categorized as AMS. (**Please turn over for LLSS questionnaire table and key**)

Other Assessments: Ultimately, ascent to higher altitudes has been shown to cause a decrease in appetite, increase in basal metabolic rate, and an overall decrease in body weight. Some of these factors return to closer to baseline after acclimatization. Difficulty in breathing clearly shows that the saturation of oxygen is low, Medication is good to be recorded for reference especially if there are any medication taken for the climb or at the campsite during the climb.

Please Note: Psychotic episodes during exposure to very high or extreme altitude have been frequently reported in mountain literature and sometimes on Kilimanjaro, but not systematically analyzed and acknowledged as a distinct clinical entity. Our guides will keep a keen eye out for this and are experienced in dealing with such situations to a certain extent!

Beyond that, it's about staying hydrated, taking your time, and being cognizant about how everyone can get altitude sickness, no matter what physical shape you're in.