**Life Tips & General Guidelines for Patients with Normal Cardiac and Health Lab Reports**

**1. Overview**

This document is designed to guide the AI agent when interacting with users whose lab reports (including cardiac markers and vital signs) are within normal ranges. In these cases, no immediate clinical consultation is required, and the agent should provide supportive lifestyle advice and general health guidelines. The guidelines herein are derived from industry standards including:

* **ACC/AHA Guidelines** (e.g., for Troponin I levels)
* **ESC Heart Failure Guidelines** (e.g., for BNP levels)
* **JNC 8 Hypertension Guidelines** (e.g., for systolic and diastolic blood pressure)
* **AHA Arrhythmia Guidelines** (e.g., for heart rate)

**2. Lab Parameters & Industry Reference Ranges**

| **Parameter** | **Low** | **Medium** | **High** | **Source** |
| --- | --- | --- | --- | --- |
| **Troponin I (ng/mL)** | < 0.04 | 0.04 – 0.4 | > 0.4 | ACC/AHA Guidelines |
| **BNP (pg/mL)** | < 100 | 100 – 400 | > 400 | ESC Heart Failure |
| **Systolic BP (mmHg)** | < 120 | 120 – 180 | > 180 | JNC 8 Hypertension |
| **Diastolic BP (mmHg)** | < 80 | 80 – 120 | > 120 | JNC 8 Hypertension |
| **Heart Rate (bpm)** | 60 – 100 | 100 – 120 | > 120 | AHA Arrhythmia |

**Additional Clinical Data Considerations:**

* **Symptoms:**
  + *Mild/Occasional*: Minimal impact discomfort
  + *Moderate:* Some chest pain with additional symptoms (e.g., palpitations)
  + *Severe:* Marked symptoms like severe chest pain, significant shortness of breath, or dizziness
* **ECG Findings:**
  + Normal vs. non-specific changes vs. ST elevation/depression
* **Patient Demographics & History:**
  + Blood Type, Known Allergies, Chronic Conditions (e.g., diabetes, hypertension), Smoking Status, Date of Birth (age), Gender

**3. Agent Trigger Criteria**

When all of the following conditions are met, the AI agent should bypass a consultation recommendation and instead offer lifestyle and general health tips:

* **Lab Report:** All values (Troponin I, BNP, Blood Pressure, Heart Rate) are within their normal ranges (i.e., below the thresholds defined as "Medium" or "High").
* **Symptoms & ECG:**
  + Patient reports either no symptoms or only minimal, non-disruptive symptoms.
  + ECG findings are normal.
* **Additional Data:**
  + No critical red flags are identified from patient demographics or chronic condition history that would otherwise prompt further consultation.

**4. Life Tips & General Health Guidelines**

When the above criteria are satisfied, the following general lifestyle tips should be communicated to the user:

**A. Healthy Diet & Nutrition**

* **Balanced Diet:** Emphasize a diet rich in fruits, vegetables, lean proteins, whole grains, and healthy fats.
* **Moderation:** Encourage moderation in salt, sugar, and saturated fats.
* **Hydration:** Recommend drinking an adequate amount of water throughout the day.

**B. Regular Physical Activity**

* **Exercise:** Advise at least 150 minutes per week of moderate aerobic activity or 75 minutes of vigorous activity, as per American Heart Association recommendations.
* **Variety:** Include activities like walking, cycling, swimming, or other enjoyable exercises.
* **Strength Training:** Suggest incorporating muscle-strengthening exercises on two or more days per week.

**C. Sleep & Stress Management**

* **Quality Sleep:** Stress the importance of 7–9 hours of good quality sleep per night.
* **Stress Reduction:** Recommend techniques such as mindfulness, meditation, deep breathing exercises, or yoga.
* **Mental Health:** Encourage regular breaks, hobbies, and social activities to support mental well-being.

**D. Preventive Health Practices**

* **Routine Check-ups:** Remind patients to schedule regular health evaluations with their healthcare provider.
* **Avoid Tobacco & Limit Alcohol:** Advise against smoking and recommend limiting alcohol intake.
* **Weight Management:** Encourage maintaining a healthy weight through balanced nutrition and regular exercise.

**E. Personalized Considerations**

* **Patient History:** Consider additional patient-specific data (e.g., chronic conditions, allergies, age, gender) to tailor advice.
* **Ongoing Monitoring:** Encourage users to stay informed about their health and promptly report any new symptoms or concerns.

**5. Disclaimer**

*The guidelines provided in this document are for general wellness and educational purposes only. They do not substitute for personalized medical advice, diagnosis, or treatment. Patients should consult their healthcare provider for any medical concerns or before making significant lifestyle changes.*

**6. References**

* Troponin I guidelines: ACC/AHA Guidelines
* BNP guidelines: ESC Heart Failure
* Blood Pressure guidelines: JNC 8 Hypertension
* Heart Rate guidelines: AHA Arrhythmia