

Scenario 5
Additional Labs

Category	Measurement/Test	Patient Result	Reference Range / Normal Values
Demographics	Age	12 years	N/A
	Gender	Female	N/A
	Height	150 cm	N/A
	Weight	50 kg	N/A
	BMI (calculated)	22.2 kg/m ²	15–20 (healthy for age)
Vital Signs	Blood Pressure	115/75 mmHg	<120/<80 (normal for age)
	Pulse Oximetry (SpO ₂)	98%	95–100%
Lipid Panel	Total Cholesterol	190 mg/dL	<170 mg/dL (pediatric)
	LDL Cholesterol	130 mg/dL	<110 mg/dL
	HDL Cholesterol	40 mg/dL	>45 mg/dL
	Triglycerides	160 mg/dL	<150 mg/dL
Micronutrient Levels	Vitamin D (25-Hydroxy)	18 ng/mL	30–100 ng/mL
	Serum Ferritin (Iron Storage)	15 ng/mL	15–150 ng/mL (pediatric females)
	Vitamin B12	190 pg/mL	200–900 pg/mL
	Folate (Serum)	2.8 ng/mL	>3 ng/mL
Other Markers	Hemoglobin	11.5 g/dL	11.5–15.5 g/dL (pediatric females)
	Fasting Glucose	95 mg/dL	70–99 mg/dL
	C-Reactive Protein (CRP)	4 mg/L	<3 mg/L

Scenario 5
Additional Labs

Category	Measurement/Test	Patient Result	Reference Range / Normal Values
Demographics	Age	28 years	N/A
	Gender	Male	N/A
	Height	170 cm	N/A
	Weight	80 kg	N/A
	BMI (calculated)	27.7 kg/m ²	18.5–24.9 (healthy)
Vital Signs	Blood Pressure	132/85 mmHg	<120/<80 (normal)
	Pulse Oximetry (SpO ₂)	96%	95–100%
Lipid Panel	Total Cholesterol	220 mg/dL	<200 mg/dL
	LDL Cholesterol	150 mg/dL	<100 mg/dL
	HDL Cholesterol	38 mg/dL	>40 mg/dL
	Triglycerides	200 mg/dL	<150 mg/dL
Micronutrient Levels	Vitamin D (25-Hydroxy)	12 ng/mL	30–100 ng/mL
	Serum Ferritin (Iron Storage)	25 ng/mL	30–400 ng/mL
	Vitamin B12	170 pg/mL	200–900 pg/mL
	Folate (Serum)	2.2 ng/mL	>3 ng/mL
Other Markers	Hemoglobin	14.0 g/dL	13.5–17.5 g/dL
	Fasting Glucose	105 mg/dL	70–99 mg/dL
	C-Reactive Protein (CRP)	6 mg/L	<3 mg/L

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Category	Measurement/Test	Patient Result	Reference Range / Normal Values
Demographics	Age	35 years	N/A
	Gender	Female	N/A
	Height	162 cm	N/A
	Weight	72 kg	N/A
	BMI (calculated)	27.4 kg/m ²	18.5–24.9 (healthy)
Vital Signs	Blood Pressure	128/82 mmHg	<120/<80 (normal)
	Pulse Oximetry (SpO ₂)	97%	95–100%
Lipid Panel	Total Cholesterol	210 mg/dL	<200 mg/dL
	LDL Cholesterol	140 mg/dL	<100 mg/dL
	HDL Cholesterol	42 mg/dL	>50 mg/dL (women)
	Triglycerides	180 mg/dL	<150 mg/dL
Micronutrient Levels	Vitamin D (25-Hydroxy)	14 ng/mL	30–100 ng/mL
	Serum Ferritin (Iron Storage)	18 ng/mL	15–150 ng/mL (women)
	Vitamin B12	185 pg/mL	200–900 pg/mL
	Folate (Serum)	2.4 ng/mL	>3 ng/mL
Other Markers	Hemoglobin	11.8 g/dL	12–16 g/dL (women)
	Fasting Glucose	102 mg/dL	70–99 mg/dL
	C-Reactive Protein (CRP)	5 mg/L	<3 mg/L

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Category	Measurement/Test	Patient Result	Reference Range / Normal Values
Demographics	Age	45 years	N/A
	Gender	Male	N/A
	Height	175 cm	N/A
	Weight	84 kg	N/A
	BMI (calculated)	27.5 kg/m ²	18.5–24.9 (healthy)
Vital Signs	Blood Pressure	138/88 mmHg	<120/<80 (normal)
	Pulse Oximetry (SpO ₂)	97%	95–100%
Lipid Panel	Total Cholesterol	240 mg/dL	<200 mg/dL
	LDL Cholesterol	160 mg/dL	<100 mg/dL
	HDL Cholesterol	35 mg/dL	>40 mg/dL
	Triglycerides	220 mg/dL	<150 mg/dL
Micronutrient Levels	Vitamin D (25-Hydroxy)	15 ng/mL	30–100 ng/mL
	Serum Ferritin (Iron Storage)	20 ng/mL	30–400 ng/mL
	Vitamin B12	180 pg/mL	200–900 pg/mL
	Folate (Serum)	2.5 ng/mL	>3 ng/mL
Other Markers	Hemoglobin	13.5 g/dL	13.5–17.5 g/dL
	Fasting Glucose	110 mg/dL	70–99 mg/dL
	C-Reactive Protein (CRP)	5 mg/L	<3 mg/L

Scenario 5
Additional Labs

Category	Measurement/Test	Patient Result	Reference Range / Normal Values
Demographics	Age	52 years	N/A
	Gender	Female	N/A
	Height	158 cm	N/A
	Weight	70 kg	N/A
	BMI (calculated)	28.0 kg/m ²	18.5–24.9 (healthy)
Vital Signs	Blood Pressure	142/90 mmHg	<120/<80 (normal)
	Pulse Oximetry (SpO ₂)	96%	95–100%
Lipid Panel	Total Cholesterol	230 mg/dL	<200 mg/dL
	LDL Cholesterol	155 mg/dL	<100 mg/dL
	HDL Cholesterol	40 mg/dL	>50 mg/dL
	Triglycerides	190 mg/dL	<150 mg/dL
Micronutrient Levels	Vitamin D (25-Hydroxy)	10 ng/mL	30–100 ng/mL
	Serum Ferritin (Iron Storage)	22 ng/mL	15–150 ng/mL
	Vitamin B12	175 pg/mL	200–900 pg/mL
	Folate (Serum)	2.3 ng/mL	>3 ng/mL
Other Markers	Hemoglobin	12.0 g/dL	12–16 g/dL
	Fasting Glucose	108 mg/dL	70–99 mg/dL
	C-Reactive Protein (CRP)	7 mg/L	<3 mg/L

Scenario 5
Additional Labs

Category	Measurement/Test	Patient Result	Reference Range / Normal Values
Demographics	Age	8 years	N/A
	Gender	Male	N/A
	Height	130 cm	N/A
	Weight	35 kg	N/A
	BMI (calculated)	20.7 kg/m ²	14–18 (healthy for age)
Vital Signs	Blood Pressure	110/70 mmHg	<120/<80 (normal for age)
	Pulse Oximetry (SpO ₂)	98%	95–100%
Lipid Panel	Total Cholesterol	180 mg/dL	<170 mg/dL (pediatric)
	LDL Cholesterol	120 mg/dL	<110 mg/dL
	HDL Cholesterol	45 mg/dL	>45 mg/dL
	Triglycerides	150 mg/dL	<150 mg/dL
Micronutrient Levels	Vitamin D (25-Hydroxy)	16 ng/mL	30–100 ng/mL
	Serum Ferritin (Iron Storage)	12 ng/mL	15–150 ng/mL (pediatric)
	Vitamin B12	195 pg/mL	200–900 pg/mL
	Folate (Serum)	2.6 ng/mL	>3 ng/mL
Other Markers	Hemoglobin	12.2 g/dL	11.5–15.5 g/dL (pediatric)
	Fasting Glucose	92 mg/dL	70–99 mg/dL
	C-Reactive Protein (CRP)	3.5 mg/L	<3 mg/L

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Category	Measurement/Test	Patient Result	Reference Range / Normal Values
Demographics	Age	60 years	N/A
	Gender	Male	N/A
	Height	168 cm	N/A
	Weight	78 kg	N/A
	BMI (calculated)	27.6 kg/m ²	18.5–24.9 (healthy)
Vital Signs	Blood Pressure	145/92 mmHg	<120/<80 (normal)
	Pulse Oximetry (SpO ₂)	95%	95–100%
Lipid Panel	Total Cholesterol	250 mg/dL	<200 mg/dL
	LDL Cholesterol	170 mg/dL	<100 mg/dL
	HDL Cholesterol	32 mg/dL	>40 mg/dL
	Triglycerides	230 mg/dL	<150 mg/dL
Micronutrient Levels	Vitamin D (25-Hydroxy)	11 ng/mL	30–100 ng/mL
	Serum Ferritin (Iron Storage)	28 ng/mL	30–400 ng/mL
	Vitamin B12	160 pg/mL	200–900 pg/mL
	Folate (Serum)	2.1 ng/mL	>3 ng/mL
Other Markers	Hemoglobin	13.0 g/dL	13.5–17.5 g/dL
	Fasting Glucose	115 mg/dL	70–99 mg/dL
	C-Reactive Protein (CRP)	8 mg/L	<3 mg/L

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Category	Measurement/Test	Patient Result	Reference Range / Normal Values
Demographics	Age	22 years	N/A
	Gender	Female	N/A
	Height	165 cm	N/A
	Weight	68 kg	N/A
	BMI (calculated)	25.0 kg/m ²	18.5–24.9 (healthy)
Vital Signs	Blood Pressure	125/80 mmHg	<120/<80 (normal)
	Pulse Oximetry (SpO ₂)	98%	95–100%
Lipid Panel	Total Cholesterol	200 mg/dL	<200 mg/dL
	LDL Cholesterol	130 mg/dL	<100 mg/dL
	HDL Cholesterol	48 mg/dL	>50 mg/dL
	Triglycerides	170 mg/dL	<150 mg/dL
Micronutrient Levels	Vitamin D (25-Hydroxy)	17 ng/mL	30–100 ng/mL
	Serum Ferritin (Iron Storage)	16 ng/mL	15–150 ng/mL
	Vitamin B12	200 pg/mL	200–900 pg/mL
	Folate (Serum)	2.7 ng/mL	>3 ng/mL
Other Markers	Hemoglobin	12.5 g/dL	12–16 g/dL
	Fasting Glucose	98 mg/dL	70–99 mg/dL
	C-Reactive Protein (CRP)	4.5 mg/L	<3 mg/L

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Category	Measurement/Test	Patient Result	Reference Range / Normal Values
Demographics	Age	40 years	N/A
	Gender	Male	N/A
	Height	172 cm	N/A
	Weight	82 kg	N/A
	BMI (calculated)	27.7 kg/m ²	18.5–24.9 (healthy)
Vital Signs	Blood Pressure	135/86 mmHg	<120/<80 (normal)
	Pulse Oximetry (SpO ₂)	97%	95–100%
Lipid Panel	Total Cholesterol	225 mg/dL	<200 mg/dL
	LDL Cholesterol	145 mg/dL	<100 mg/dL
	HDL Cholesterol	36 mg/dL	>40 mg/dL
	Triglycerides	210 mg/dL	<150 mg/dL
Micronutrient Levels	Vitamin D (25-Hydroxy)	13 ng/mL	30–100 ng/mL
	Serum Ferritin (Iron Storage)	24 ng/mL	30–400 ng/mL
	Vitamin B12	165 pg/mL	200–900 pg/mL
	Folate (Serum)	2.0 ng/mL	>3 ng/mL
Other Markers	Hemoglobin	13.8 g/dL	13.5–17.5 g/dL
	Fasting Glucose	107 mg/dL	70–99 mg/dL
	C-Reactive Protein (CRP)	6.5 mg/L	<3 mg/L

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Category	Measurement/Test	Patient Result	Reference Range / Normal Values
Demographics	Age	15 years	N/A
	Gender	Female	N/A
	Height	155 cm	N/A
	Weight	55 kg	N/A
	BMI (calculated)	22.9 kg/m ²	16–21 (healthy for age)
Vital Signs	Blood Pressure	118/76 mmHg	<120/<80 (normal for age)
	Pulse Oximetry (SpO ₂)	98%	95–100%
Lipid Panel	Total Cholesterol	195 mg/dL	<170 mg/dL (pediatric)
	LDL Cholesterol	135 mg/dL	<110 mg/dL
	HDL Cholesterol	38 mg/dL	>45 mg/dL
	Triglycerides	165 mg/dL	<150 mg/dL
Micronutrient Levels	Vitamin D (25-Hydroxy)	19 ng/mL	30–100 ng/mL
	Serum Ferritin (Iron Storage)	14 ng/mL	15–150 ng/mL
	Vitamin B12	182 pg/mL	200–900 pg/mL
	Folate (Serum)	2.9 ng/mL	>3 ng/mL
Other Markers	Hemoglobin	11.9 g/dL	11.5–15.5 g/dL
	Fasting Glucose	96 mg/dL	70–99 mg/dL
	C-Reactive Protein (CRP)	4.2 mg/L	<3 mg/L

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Additional Labs

Category	Measurement/Test	Patient Result	Reference Range / Normal Values	Interpretation / Notes	
Demographics	Age	17 years	N/A	Adolescent female, pregnant (estimated 20 weeks); high-risk due to young age and displacement.	
	Gender	Female	N/A		
	Height	152 cm	N/A		
	Weight	58 kg	N/A		Appropriate for gestational age; monitor weight gain.
	BMI (calculated)	25.1 kg/m ²	18.5–24.9 (healthy, adjusted for pregnancy)		Borderline overweight; discuss prenatal nutrition.
Vital Signs	Blood Pressure	118/78 mmHg	<120/<80 (normal, adjusted for pregnancy)	Normal; watch for gestational hypertension.	
	Pulse Oximetry (SpO ₂)	98%	95–100%	Normal.	
Lipid Panel	Total Cholesterol	205 mg/dL	<200 mg/dL (adjusted for pregnancy)	Slightly elevated; pregnancy can naturally increase lipids.	
	LDL Cholesterol	135 mg/dL	<100 mg/dL	Elevated.	
	HDL Cholesterol	45 mg/dL	>50 mg/dL (women)	Borderline low.	

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	Triglycerides	175 mg/dL	<150 mg/dL	Elevated; common in pregnancy but monitor.
Micronutrient Levels	Vitamin D (25-Hydroxy)	16 ng/mL	30–100 ng/mL	Deficient; critical for fetal bone development.
	Serum Ferritin (Iron Storage)	12 ng/mL	15–150 ng/mL (adjusted for pregnancy)	Low; high risk of anemia in pregnancy.
	Vitamin B12	180 pg/mL	200–900 pg/mL	Deficient; impacts neural tube development.
	Folate (Serum)	2.5 ng/mL	>3 ng/mL	Deficient; essential for preventing birth defects.
Other Markers	Hemoglobin	10.8 g/dL	11–15 g/dL (pregnancy-adjusted)	Low; anemia risk, common in camps.
	Fasting Glucose	94 mg/dL	70–99 mg/dL	Normal; screen for gestational diabetes.
	C-Reactive Protein (CRP)	5 mg/L	<3 mg/L	Elevated; possible inflammation or infection.