

## Item Bank Templates

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updated 4/19/2021

2 Rows 2 Columns Align Left

Row 1 Column 1	Row 1 Column 2
Row 2 Column 1	Row 2 Column 2

6 Rows 4 Columns Align Center

	X	Y	Z
A	1	2	3
B	1	2	3
C	1	2	3
D	1	2	3
E	1	2	3

6 Rows 5 Columns Align Center

	W	X	Y	Z
A	1	2	3	4
B	1	2	3	4
C	1	2	3	4
D	1	2	3	4
E	1	2	3	4

BBTM Family Study

	ABO	Rh	HLA-A	HLA-B
Father	X	x	x	x
Mother	X	x	x	x
Sibling 1	X	x	x	x
Sibling 2	X	x	x	x
Sibling 3	X	x	x	x

### Blood Gases

Test (units)	Patient Result	Reference Range
pH	x	7.38–7.42
pCO <sub>2</sub> (mm Hg)	x	38–42
pO <sub>2</sub> (mm Hg)	x	80–100
Oxygen saturation (%)	x	>95
HCO <sub>3</sub> (mmol/L)	x	22–29

### Cerebrospinal Fluid (CSF)

Test (units)	Patient Result	Reference Range
CSF total protein (mg/100 mL)	x	15–60
CSF glucose (mg/100 mL)	x	50–80 (or greater than two-thirds of blood glucose level)
CSF WBC count (all mononuclear)	x	0–5
CSF RBC count	x	0

### CBC

Test (units)	Patient Result	Reference Range
WBC (x 10 <sup>9</sup> /L)	x	3.5–10.5
RBC (x 10 <sup>12</sup> /L)	x	4.3–5.7 (male) 3.9–5.0 (female)
Hemoglobin (g/dL)	x	13.5–17.5 (male) 12.0–15.5 (female)
Hematocrit (%)	x	38.8–50.0 (male) 34.9–44.5 (female)
MCV (fL)	x	80–100
MCH (g/dL)	x	25–35
MCHC (g/dL)	x	31–36
RDW (%)	x	11.6–14.8
Platelets (x 10 <sup>9</sup> /L)	x	150–450

CBC w/ Reticulocyte Ct

Test (units)	Patient Result	Reference Range
WBC (x 10 <sup>9</sup> /L)	x	3.5–10.5
RBC (x 10 <sup>12</sup> /L)	x	4.3–5.7 (male) 3.9–5.0 (female)
Hemoglobin (g/dL)	x	13.5–17.5 (male) 12.0–15.5 (female)
Hematocrit (%)	x	38.8–50.0 (male) 34.9–44.5 (female)
MCV (fL)	x	80–100
MCH (g/dL)	x	25–35
MCHC (g/dL)	x	31–36
RDW (%)	x	11.6–14.8
Platelets (x 10 <sup>9</sup> /L)	x	150–450
Reticulocyte count (x 10 <sup>9</sup> /L)	x	25–75

Coagulation

Test (units)	Patient Result	Reference Range
aPTT (sec)	x	28–38
PT (sec)/INR	x/x	9.5–13.8 / 0.8–1.2
Platelet count (x 10 <sup>9</sup> /L)	x	150–450
Thrombin time (sec)	x	15–23
Fibrinogen (mg/dL)	x	200–430
D-dimer (ng/mL)	x	<250
Protein C activity (%)	x	70–150
Protein S activity (%)	x	65–160 (male; female >50) 50–160 (female <50)

### Coagulation Hemostasis

Test (units)	Patient Result	Reference Range
aPTT (sec)	x	28–38
PT (sec)/INR	x/x	9.5–13.8 / 0.8–1.2
Platelet count (x 10 <sup>9</sup> /L)	x	150–450
Thrombin time (sec)	x	15–23
Fibrinogen (mg/dL)	x	200–430
D-dimer (ng/mL)	x	<250
Protein C activity (%)	x	70–150
Protein S activity (%)	x	65–160 (male; female >50) 50–160 (female <50)
von Willebrand factor antigen (%)	x	50–150
Factor VIII (%)	x	50–150

### Electrolytes, Glucose, BUN, Creatinine, Osmolality

Test (units)	Patient Result	Reference Range
Sodium (mmol/L)	x	135–145
Potassium (mmol/L)	x	3.6–5.2
Chloride (mmol/L)	x	102–112
Bicarbonate (mmol/L)	x	22–29
Glucose, random (mg/dL)	x	70–140
BUN (mg/dL)	x	6–24
Creatinine (mg/dL)	x	0.6–1.3
Osmolality (mOsm/kg)	x	275–295

### Immunophenotype

	CD3	CD4	CD45RO	CD7
A	neg	+	+	neg
B	+	neg	+	neg
C	+	+	neg	neg
D	+	+	+	neg
E	+	+	+	+

### Iron Studies

Test (units)	Patient Result	Reference Range
Serum iron (mmol/L)	x	10–30
Total iron-binding capacity (mmol/L)	x	40–75
Serum ferritin (mg/L)	x	40–340

### Lipid Panel

Test (units)	Patient Result	Reference Range
Total cholesterol (mg/dL)	x	<200
HDL cholesterol (mg/dL)	x	>40 (males) >50 (females)
Triglycerides (mg/dL)	x	<150

Liver Panel

Test (units)	Patient Result	Reference Range
Total bilirubin (mg/dL)	x	≤1.2
Direct bilirubin (mg/dL)	x	0.0–0.3
Aspartate aminotransferase [AST] (U/L)	x	8–48 (males) 8–43 (females)
Alanine aminotransferase [ALT] (U/L)	x	7–55 (males) 7–45 (females)
Alkaline phosphatase (U/L)	x	45–115 (males) 55–142 (females)
Total protein (g/dL)	x	6.3–7.9
Albumin (g/dL)	x	3.5–5.0

Neonatal Amino Acid Screen

Test	Patient Result (mmol/L)	Reference Range (mmol/L)
Alanine	x	230–410
Arginine	x	20–90
Asparagine	x	20–70
Aspartic acid	x	0–20
Citrulline	x	0–30
Glutamic acid	x	20–110
Glutamine	x	530–960
Glycine	x	220–520
Histidine	x	40–12
Hydroxyproline	x	0–30
Isoleucine	x	20–60
Leucine	x	40–110
Lysine	x	110–270
Methionine	x	0–50
Ornithine	x	40–160
Phenylalanine	x	40–110
Proline	x	100–280
Serine	x	90–250
Taurine	x	70–220
Threonine	x	110–340
Tyrosine	x	40–100
Valine	x	80–250



Quad Test

Test	Multiple of the Median (MOM)
Alpha-fetoprotein (AFP)	x
Unconjugated estriol (uE3)	x
Human chorionic gonadotropin	x
Dimeric inhibin A	x

Serum Proteins

Test (units)	Patient Result	Reference Range
Total protein (g/dL)	x	6–8
Albumin (g/dL)	x	3.3–5
IgG (mg/dL)	x	790–1640
IgA (mg/dL)	x	66–436
IgM (mg/dL)	x	43–279
IgE (mg/dL)	x	10–180

Table with Arrows

	X	Y	Z
A	↓	↓	↓
B	↑	↑	↑
C	↓	↑	↑
D	↑	↓	↓
E	↑	↑	↓

Thyroid Panel

Test (units)	Patient Result	Reference Range
TSH (mIU/L)	x	0.3–4.2
Total T4 (µg/dL)	x	4.5–11.7
Free T4 (ng/dL)	x	0.9–1.7
Total T3 (ng/dL)	x	80–200

WBC Diff

Test (units)	Patient Result	Reference Range
Neutrophils (%)	x	45–74
Bands (%)	x	0–4
Lymphocytes (%)	x	16–45
Monocytes (%)	x	2–8
Eosinophils (%)	x	0–7
Basophils (%)	x	0–2
Promyelocytes (%)	x	
Myelocytes (%)	x	
Metamyelocytes (%)	x	
Blasts (%)	x	