

Intravenous Immune Globulin (IVIg) Reaction Chart

ALL patients should receive information on potential reactions and how to report a suspected transfusion reaction.

Mild Transient Reaction/Side Effects

- Mild signs and symptoms that resolve if the flow rate is reduced and/or the patient is medicated.
- Most likely to occur in the first 30 to 60 minutes of infusion.
- **Do Not Report** to Transfusion Medicine/Laboratory. No patient samples are required.
- If patient's condition does not improve despite decreasing the rate of medication: **STOP the infusion** and refer to the section on **Acute IVIg Reactions** on this chart.

Signs and Symptoms	Action	Comments
<ul style="list-style-type: none"> ▪ Headache (mild to moderate) ▪ Flushing ▪ Muscle aches ▪ Shivering ▪ Nausea ▪ Localized Urticaria ▪ Pruritus ▪ Anxiety ▪ Light-headed ▪ Dizziness or irritability 	<ul style="list-style-type: none"> ▪ Decrease the flow rate until the symptoms subside ▪ Consult physician ▪ Medicate appropriately ▪ Apply relevant patient comfort measures ▪ Frequent vital signs ▪ Document as per facility policy ▪ Do not report to TM/Lab 	For subsequent treatments consider: <ul style="list-style-type: none"> ▪ premedication ▪ increasing the infusion at a slower rate
<ul style="list-style-type: none"> ▪ Pain at intravenous site 	Using a large vein for the infusion may avoid pain at the intravenous site.	

Acute IVIg Reactions – Within 24 hours of Transfusion

- **Stop the infusion; Consult Physician; Report to Transfusion Medicine/Laboratory (TM/Lab)**
- Document as per facility policy
- Return any unopened product to TM/Lab

*Note: **Fever** is defined as an oral temperature $\geq 38^{\circ}\text{C}$ **AND** $\geq 1^{\circ}\text{C}$ rise in oral temperature above pre-transfusion baseline

Signs and Symptoms	Reaction	Actions	Comments
Anxiety; fever*; chills; rigors; non localized urticarial/rash; itchiness; flushing; nausea; vomiting; chest, back or abdominal pain; tachycardia; hypotension or hypertension OR any mild reactions/side effects listed above that do not respond to rate decrease or medication	Moderate to Severe	<ul style="list-style-type: none"> ▪ Contact the physician for assessment and symptomatic treatment ▪ Comfort measures as applicable ▪ Do not restart without a physician's order ▪ Reassess patient frequently 	For subsequent treatments consider: <ul style="list-style-type: none"> ▪ premedication ▪ increasing the infusion at a slower rate ▪ changing brand of IVIG ▪ the use of SCIG
Facial and/or tongue swelling; difficulty in swallowing; chest tightness; airway edema; dyspnea; hypotension; shock; tachycardia; nausea; vomiting; widespread urticarial/rash (involving the face/neck OR greater than 2/3 of the body surface), anxiety; fever*	Anaphylaxis	<ul style="list-style-type: none"> ▪ Do not restart ▪ Contact physician for assessment and symptomatic treatment ▪ May require epinephrine ▪ Comfort measures as applicable 	<ul style="list-style-type: none"> ▪ May be reaction to IgA in an IgA deficient patient For subsequent treatments consider: <ul style="list-style-type: none"> ▪ changing brand of IVIG ▪ reassessing the need for IVIG ▪ consulting an immunologist ▪ measuring IgA level
Fever*, back pain, dyspnea, red/brown urine	Acute Hemolysis	<ul style="list-style-type: none"> ▪ Do not restart ▪ Contact physician for assessment and symptomatic treatment ▪ Send to TM/Lab <ul style="list-style-type: none"> ▪ 2 EDTA vials ▪ First voided post-reaction urine sample for routine urinalysis 	<ul style="list-style-type: none"> ▪ Due to antibodies in IVIG directed against a patient's red blood cells ▪ Blood group A, B or AB patients receiving a dose of 1 g/kg or more are at an increased risk of hemolysis

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Delayed IVIG Reactions – Greater than 24 hours post Transfusion

- **Consult Physician; Report to TM/Lab; Send Required Patient Samples.**
- Symptomatic treatment as ordered by physician. Comfort measures as applicable
- Document as per policy.
- Patient may be readmitted to hospital at a later date due to delayed reaction.
- For subsequent administration consider:
 - premedicating appropriately
 - increasing the infusion at a slower rate
 - reducing maximum infusion rate
 - changing brand of IVIG
 - the use of SCIG

*Note: **Fever** is defined as an oral temperature $\geq 38^{\circ}\text{C}$ **AND** $\geq 1^{\circ}\text{C}$ rise in oral temperature above pre-transfusion baseline

Signs and Symptoms	Reaction Type	Comments
Prolonged and severe headache that is unresolved by medication	Delayed Headache	<ul style="list-style-type: none"> ▪ Medicate as ordered as soon as first signs of headache occur ▪ For subsequent IVIG administration, physician may consider prehydration with saline
Severe and incapacitating headache with nuchal rigidity, drowsiness, fever*, lethargy, photophobia, painful eye movements, nausea, vomiting, diarrhea, pharyngitis, deterioration of mental status	Aseptic Meningitis	<ul style="list-style-type: none"> ▪ Presents up to 72 hours post transfusion ▪ Usually resolves spontaneously in 1-2 days ▪ Previous history of migraine headaches may be a risk factor ▪ Pre/post medication with corticosteroids/anti-migraine medication may help to prevent/reduce incidence
Fever*, back pain, dyspnea, red/brown urine, falling hemoglobin, jaundice, unexpected/unexplained fatigue	Delayed Hemolysis	<ul style="list-style-type: none"> ▪ Occurring within 10 days post transfusion ▪ Often due to antibodies in IVIG directed against a patient's red blood cells ▪ Blood group A, B or AB patients receiving 1g/kg or more are at an increased risk of hemolysis
Peripheral edema, periorbital edema, urination changes, increased serum creatinine, hypertension, back pain, flank pain, blood in urine	Acute Renal Failure	<ul style="list-style-type: none"> ▪ Predisposing factors: age >65; diabetes mellitus; pre-existing renal sufficiency ▪ Usually seen with products containing sucrose (none currently licensed in Canada)
Symptoms related to: Myocardial infarction; transient ischemic attack, stroke; deep vein thrombosis	Thrombo-embolic events	<ul style="list-style-type: none"> ▪ Causative relationship not clearly understood ▪ Possibly related to increases in blood viscosity ▪ Risk factors include: atherosclerosis; advanced age; previous thrombotic event; clotting disorder; hypertension; diabetes; obesity; immobility
Variable as per specific infectious disease	Transfusion Transmitted Infections	<ul style="list-style-type: none"> ▪ Diagnosed through transmissible disease tests ▪ No reported cases of HIV or HBV ▪ No reported HCV since 1995 ▪ Effective viral reduction measures ▪ Prion (vCJD) transmission theoretical risk