Requirements for Approval of Immunoglobulin in Secondary Immunodeficiency
VCH/PHC Approval Process and Best Practice Guidelines

All requests for IVIg/SCIg are screened by Transfusion Medicine in accordance with the BC Ig Utilization Management Program. Consultation with an Immunologist and/or site Hematopathologist is recommended if below criteria are not met.

DIAGNOSIS:

Acquired Hypogammaglobulinemia Secondary to:

- Chronic Lymphocytic Leukemia (CLL)
- Multiple Myeloma (MM)
- Non-Hodgkin Lymphoma (NHL)
- Hematopoietic Stem cell transplantation (HSCT) with memory B-cell deficiency
- CAR-T cell therapy/ Complete B-cell Aplasia
- Other - Consultation with Hematopathologist is required

CRITERIA FOR Ig REPLACEMENT:

1. Significant hypogammaglobulinemia <5g/L
    a. Serum IgG measured on 2 separate occasions
        i. At least one without active infection
    b. Baseline IgA and IgM
2. Infection history:
    a. At least one life-threatening bacterial infection in the last 12 months
    OR
    b. At least two serious bacterial infections in last 6 months requiring more than just standard courses of antibiotics
3. Infections confirmed or clinically consistent with encapsulated bacteria (ie. *S. pneumonia, H. influenzae, N. meningitidis*); infections unrelated to chemo/radiation

If criteria are not met, and IgG replacement is still deemed necessary, referral to an Immunologist should be considered.

DOSING:

- IVIG:
    - 0.4-0.6 g/kg (adjusted body weight) every 4 weeks - maintenance dose
        - 0.4g/kg loading dose (one time) in first month if IgG <4g/L
        - Trough level 1 week before subsequent infusion; target 7-10g/L (or minimal dose required for clinical effectiveness)
- SCIg:
    - 0.1-0.15g/kg every week (or more frequently)
        - Trough level 24-48h before subsequent infusion; target IgG levels not well defined; minimal dose for clinical effectiveness is recommended

REVIEW OF CLINICAL EFFECTIVENESS – to be assessed at the following intervals:

1. After 6 months at the end of the initial approval – mandated by Ministry of Health
    a. Serum immunoglobulin levels (IgG, IgA and IgM) before the last dose
    b. History of infection
2. At 12 months for review of a continuing approval (6 months after the Initial Review, q 12 months thereafter)
    a. Monitoring of serum immunoglobulins (IgG, IgA and IgM)
    b. History of infection
3. After trial of cessation of IgG replacement
    a. If recovery is suggested, cessation of Ig treatment and clinical monitoring is indicated
    b. Repeat clinical and/or immunological evaluation is required for re-commencement of therapy Indications to restart:
        i. severe/respiratory infection confirmed to be due to encapsulated bacteria and/or
        ii. severe/respiratory infection clinically consistent with encapsulated bacteria

Note: Transfusion Medicine may recommend an Ig dose if serum IgG levels are significantly above the upper limit of normal.

TRIAL OF CESSATION

Transfusion Medicine may recommend a trial cessation of Ig to the ordering physician.

Immunologist/ expert review is also strongly recommended for a trial cessation of Ig if any of the following apply:

- The patient has an appropriate vaccine response
- Recovery of the immune system is suggested by:
    - Trending upward or normal IgM or IgA levels
    - Trough IgG levels are above 5 g/L (4-6 weeks of cessation to assess)
    - IgG levels are above 10 g/L on replacement therapy

Trial of cessation may not be appropriate if:

- There is medical contraindication on safety grounds, determined in discussion with Transfusion Medicine and/or immunologist/designated expert review; Examples:
    - Neutropenia
    - Continued immunosuppressant medication
    - Active bronchiectasis and/or suppurative lung disease
- The underlying condition persists without significant improvement AND the initial qualifying criteria have been met
- Continuation is specifically recommended by immunologist/ designated expert review