

# SCIG Home Infusion at The Ottawa Hospital

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# SCIg Home Infusion

## **We will review:**

- Background
- Difference between IVIG/ SCIG
- Candidates for SCIG
- Advantages of SCIG
- The Ottawa Hospital Program
- Infusion technique Push/ Pump

# Subcutaneous Immunoglobulin Therapy

- Initially done in the 1980's in noncompliant patients due to pain of IM injections.
- Increased usage in Europe and often the formulation first offered
- 2009 SCIG Vivaglobin 16% CBS
- 2011 SCIG Hizentra 20% CBS
- Cost of product equal to IVIG
- Approved for PID/SID
- SCIG Products: Gamunex10%, Hizentra 20%



# Classification of Immune Deficiencies



# Definitions

## Primary Immune Deficiency

- The term primary immunodeficiency disease denotes disorders resulting from inherited defects of the immune system
- In General, when someone, from the time of their birth, cannot make enough Ig on their own, they have primary immunodeficiency (PID). Some common Ig deficiencies are:
  - IgA deficiency
  - Ig subclass deficiency
  - CVID
  - XLA
  - Specific Ab deficiency

# Definitions

## Secondary Immune Deficiency

When a person isn't able to make Ig on their own due to outside factors or diagnosis: They have secondary immune deficiency (SID)

- Hematologic Malignancies - Lymphoma/leukemia
- Medications (such as long term use of steroids, rituximab)
- HIV
- Burns
- Bone Marrow Transplant
- Radiation Chronic renal disease
- Chronic GI disease

# OGH Home Infusion Program

- OGH introduced Subcutaneous Home Therapy in 2009.
- Dedicated Nurse Home infusion Program in Sept 2011.
  - started at 2 days/week
  - 3-4 days/week
  - full time

# Ottawa Hospital Background

- Immune deficiency clinic : Module G
- Dr. Cameron: Clinical director
- 140 patients trained
- Number of patients being treated and managed now
  - PID= 61
  - SID= 41
  - Others =13
- We have 3 clinics Monday, Wednesday, Thursday



# Our SCIG patient population

- PID --- CVID and Sub Class deficiency, IgA Deficiency
- SID --- CLL, BMT, Post Rituximab, Lymphoma
- Auto immune disorder -- Haemolytic Anemia,  
Dermatomyositis,
- Neurology – MMN, MG, CIDP,

# Difference between IVIG/SCIG

## IVIG Hospital

- Given through venous access or port
- Infusion every 3-4 weeks
- Systemic side effects
- Monitoring by a nurse  
infusion duration of 3-6 hrs
- Pre medication often needed to control adverse events

## SCIG Home

- Given in sub cutaneous tissue
- Injection once or twice weekly (dose dependent)
- Reactions mostly localized at injection sites
- Patient or family member taught how to safely inject at home
- No pre meds necessary

# Who Are Candidates for SCIg?

PID /SID Patients with:

- IV access problems
- Tolerability / adverse events with IVIg
- Patients who are looking for:
  - less invasive mode of administration
  - Independence IV infusion units in Hospitals/Clinics
  - Greater convenience and freedom
  - Lifestyle, travel, distance from infusion centres

# SCIG Advantages

## Patient perspective

- Independence from hospital
- Decrease to absent systemic adverse events
- No IV or Port assess needed
- No pre medication needed
- Steady state Ig achieved
- freedom to Inject on your own schedule

## Hospital perspective

- More cost efficient to have patient inject at home
- Freeing up space in MDCU for other treatments
- Decrease in wait times

# My Role as Dedicated SCIG Nurse

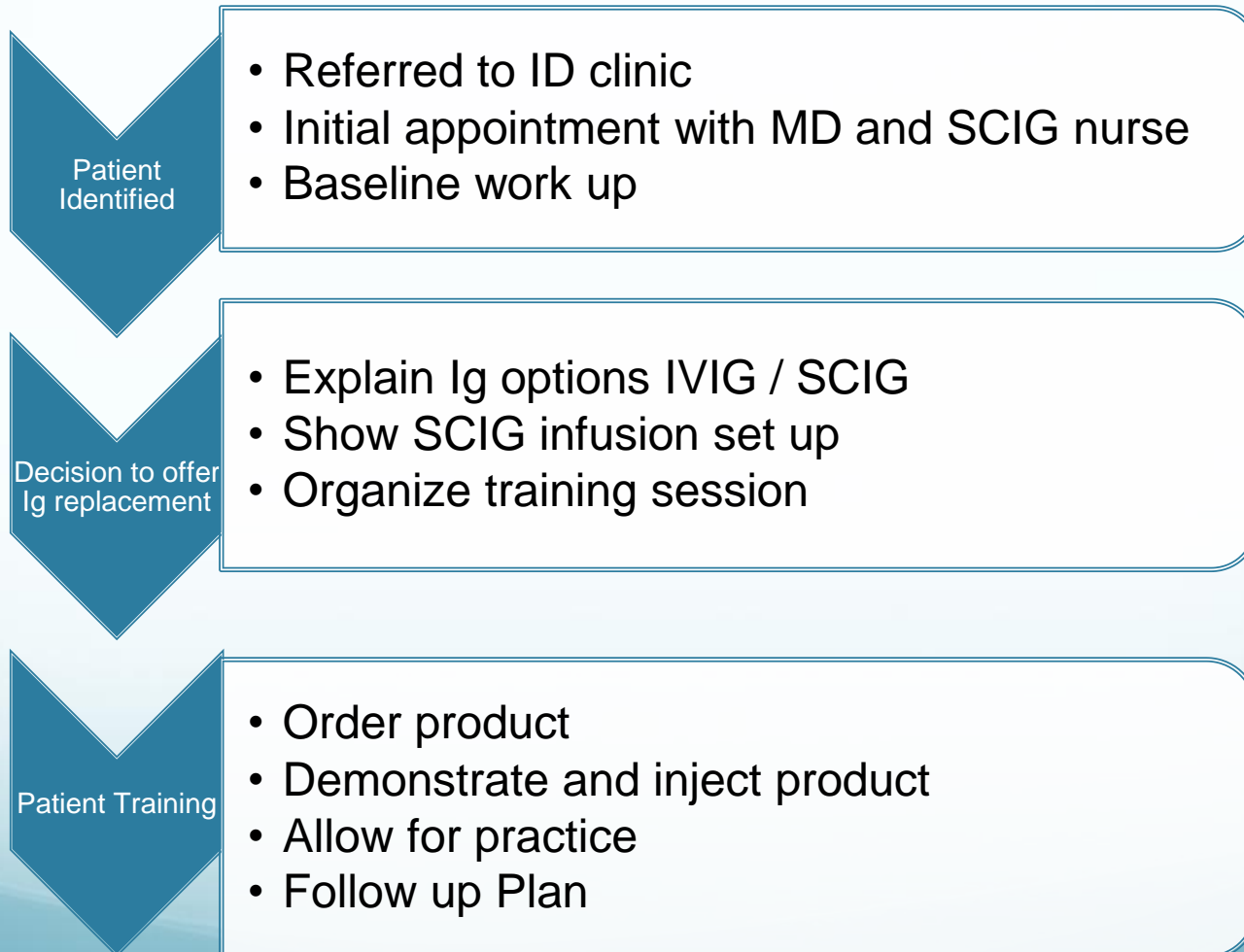
- **Education and Training**
- **Support**
- **Program Management**
- **Coordinating and Triage**
- **Availability**

# My Role as Dedicated SCIG Nurse

- **Education, Training and Resource** to patients, family and health care professionals
- **Support** with PID/SID infusion technique and treatment plan. continued education and monitoring of Ig levels.
- Individualized treatment plan to fit patient lifestyle or disease
- **Management** of Ig replacement therapy, continued review of injection technique as needed. Ig dose adjustment with medical consult.
- **Coordinating and Triage:** SCIG training New consults, follow up with nurse or doctor as needed, next Ig levels, supply order with Blood Bank
- **Availability** for trouble shooting and phone support to help with home infusion program retention

# Our Process

- Explanation of TOH process.



# Training For SCIG

Patients who receive SCIG are trained at the Ottawa Hospital General site in Module G

Typical training takes approximately 1-2 hrs. done in 2 or 3 sessions on a 1:1 basis.



# Training For SCIg

1<sup>st</sup> visit: the patient is given all the information regarding product, preparation and safe infusion at home.

Stress the Importance:

1) Infusion log sheets 2) Adverse events

The patient then does the 1st injection.

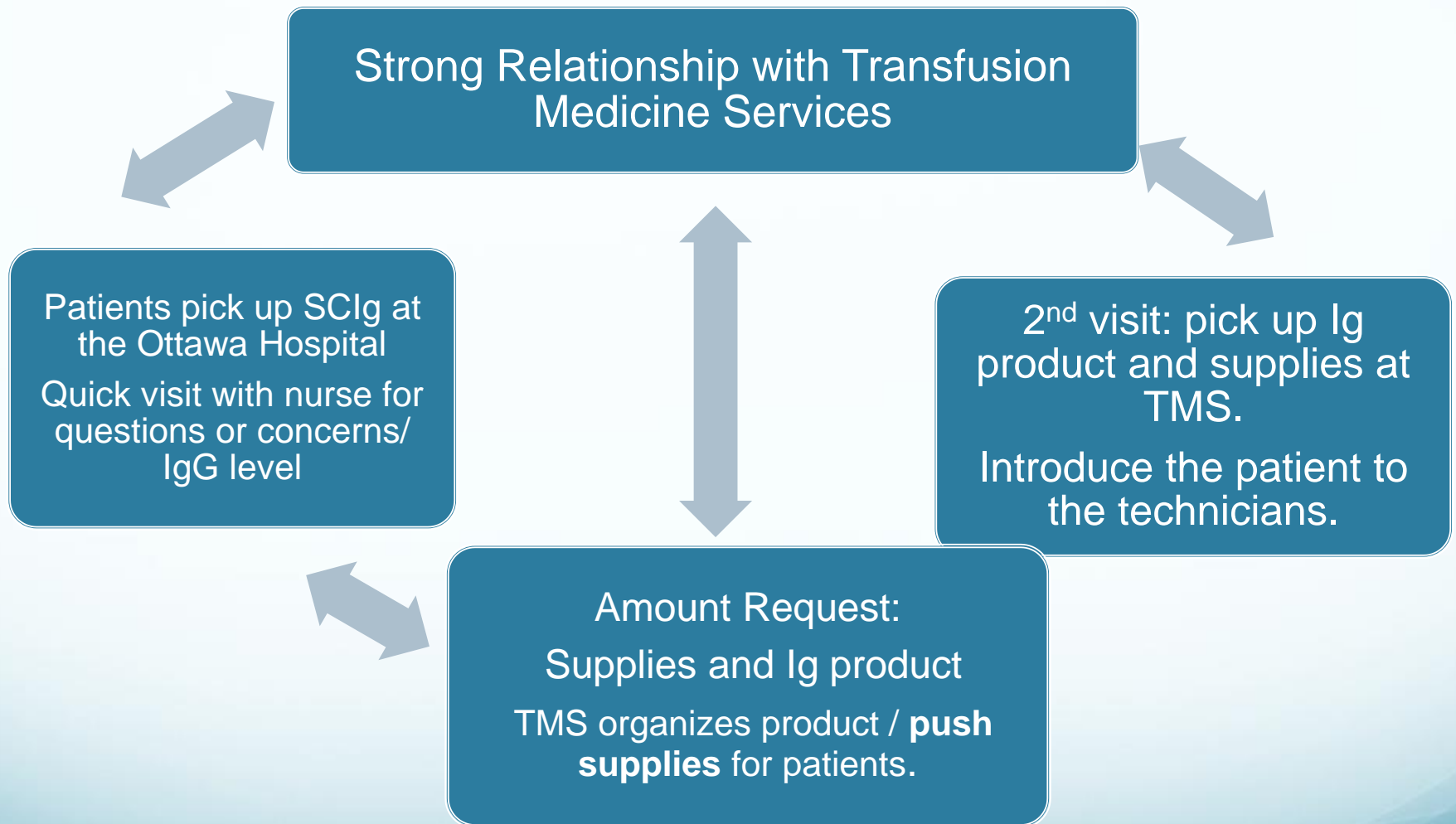
# Training For SCIg

2nd visit: the patient prepares and administers Ig product under nurse supervision.

If satisfactory: patient takes home product and supplies = 1 month

3<sup>rd</sup> visit: needed if patient and/or nurse feels patient would benefit from further training.

# Role of Transfusion Medicine



# Follow up

- **Post training:**

- 1 month – infusion and log sheet review, telephone support

  - Ig level taken by nurse

  - Small “tweaks” may be necessary

- 3 months- IgG level

  - IgG levels drawn 4-6 weeks after dose change

6-month to 1 year follow up for Renewal of Orders and Blood Consent, and Infection Log review. Technique review

- On going assessment for adherence if necessary

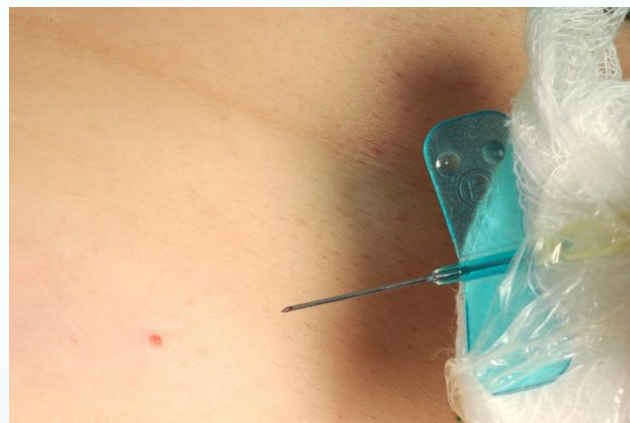
# The Benefits of SCIg Home Infusion

- Less adverse side effects than IVIg
- Leads to improvement of quality of life.
- Freedom to infuse on your own schedule
- Independence and empowerment by self-therapy
- Reduces the risk of acquiring in hospital infections.
- Reduced hospital services/ hospital costs/ decrease wait times
- Better tolerability due to stability of IgG steady state level and decrease adverse side effects

# IV or SC?

The patient always has the choice to decide what treatment option is best suited for his or her lifestyle.

# The Push Technique



Most Cost Effective  
Syringe, Butterfly and Tubing and sterility  
supplies

# Pump method



- Single lead or multi-lead infusion set
- Use with or without an infusion pump
- Pump is More expensive
- Push = ~\$200/year
- Pump = ~\$2000/year

