Whittington Health NHS

Immune Thrombocytopenia (ITP) in Children

Subject:	Immune Thrombocytopenia (ITP) in Children
Policy Number	N/A
Ratified By:	Original by the Clinical Guidelines Committee (September 2009)
Date Ratified:	September 2009, minor amendments December 2012, reviewed no change Nov 2015
Version:	3.0
Policy Executive Owner:	Clinical Director, Children's Services ICSU
Designation of Author:	Consultant Paediatrician
Name of Assurance Committee:	As above
Date Issued:	November 2015
Review Date:	3 years hence
Target Audience:	Paediatricians
Key Words:	Paediatrics, Platelets, Immune

Version Control Sheet

Version	Date	Author	Status	Comment
V1	Sep 2009	Drs J Raine, H Mackinnon, S Nagraj	Offline	Version 1
V2	Dec 2012	Dr G Sen/Dr A Rismani	Off line	-IVIg dose remains at 0.8mg-1g/kg given on 1 or 2 days. Lower doses no longer recommended -Dose of prednisolone changed to 4mg/kg for 4 days
V3	Nov 2015	Dr G Sen	Current	Reviewed. No change to content required. Dates reassigned.

➢ Criteria for use

Paediatric patients up to age 16, excluding neonates in first month of life.

➢ Background/ introduction

- ITP in as acquired immune mediated disorder characterised by isolated thrombocytopenia.
- ITP in children is usually a benign disorder that requires no active management other than careful explanation and counselling.
- About 80% of children will recover spontaneously in 6 months, and many sooner. A minority of patients (10%), usually adolescent girls, will have thrombocytopenia beyond 6 months ('Chronic ITP').
- Serious bleeding is rare (4% risk of severe epistaxis/gastro-intestinal (GI) bleeding; 0.1-0.5% risk of intracranial haemorrhage).

➢ Inclusion/ exclusion criteria

Chronic ITP – this guideline can be used for management of acute bleeding episodes. Long term management is outside scope of this guideline.

➢ Clinical management

ITP is a diagnosis of exclusion. The diagnosis depends on there being manifestations of thrombocytopenia without other abnormal findings.

History

- Brief (usually 24-48hr) history of appearance of petechiae, purpura and bruising. Longer history may suggest other bone marrow disorders.
- Systemically well child.
- May be history of recent viral infection or immunization.
- Ask about epistaxis, GI bleeding (oral or rectal), haematuria.

Examination

There should be absence of pallor, lymphadenopathy, hepatosplenomegaly.

Investigations

- The diagnosis can usually be confirmed by full blood count (FBC) and blood film.
- Platelet count usually $<20 \times 10^9$ / litre. There are rarely symptoms with higher platelet counts.
- Haemoglobin and white blood cell count should be normal.
- Clotting screen should be normal.
- Blood film should be examined by Haematology Registrar to exclude leukaemia, aplastic anaemia and other marrow infiltrative disorders.
- Bone marrow aspiration only required if diagnostic uncertainty or considering use of steroids. Discuss with Paediatric and Haematology Consultants.

➢ Management

Treatment should be because of active bleeding and not based on platelet count alone.

Admission and discharge criteria

- For new cases, consider admission for observation and parental education.
- Once the diagnosis is confirmed and the child is well, they can be managed as an outpatient with careful counselling.
- Arrange appointment for review and repeat blood count in 7-10 days to check that there is no evolution to a serious marrow disorder. If child is well and the platelet count is recovering, further follow-up can be at 1-2 weekly intervals and then stretched out as appropriate until remission.
- Issue following advice:

  ➢ To attend A+E if any of the following occur:

    - Injury to head
    - Persistent or severe headache
    - Vomiting or drowsiness
    - Blood in stool or urine
    - Epistaxis lasting longer than 30 minutes
    - Persistent gum bleeding

  ➢ Avoid non-steroidal anti-inflammatory drugs and intramuscular injections.

  ➢ Can attend school as normal but avoid contact sports and rough physical activity.

	Please **issue** Whittington Health Patient leaflet: ***ITP in Children leaflet available under patient leaflets section of intranet***

Criteria for active treatment

- Active bleeding will require inpatient management.
- Bruising and petechiae alone does not require active treatment.
- Active treatment should only be required for persistent bleeding. This should only be commenced after discussion with Paediatric Consultant.

- Treatment with intravenous immunoglobulin (IVIg) or steroids should cause the platelet count to rise but there is no evidence that it will improve chances of complete remission. Furthermore, these treatments carry numerous side effects.

1. Intravenous Immunoglobulin (IVIg)

	Please see Whittington Health Guideline: **'Intravenous Immunoglobulin Use'**

Consider if continuous bleeding (e.g epistaxis beyond 30 minutes).

Usual dose is 0.8mg-1g/kg given on a single occasion or on 2 consecutive days (if still bleeding).

Round to nearest vial.

This is a pooled blood product so carries the risk of anaphylaxis and theoretical risk of infection. Fever, headaches and nausea are common side effects.

Repeat FBC on day 2 (or earlier if indicated).

2. Prednisolone

This can be given as a short course of 4mg/kg/day for 4 days.

If contemplating steroid treatment, discussion with Consultant Haematologist is essential to consider the need for a bone marrow aspirate.

Repeat FBC at day 4 (or earlier if indicated).

3.Tranexamic acid

Topical tranexamic acid can be used as an adjunct for persistent superficial bleeding e.g nose/gums.

Apply 100mg/ml IV solution to gauze and apply topically.

Platelet transfusions

Platelets will be rapidly consumed so are usually required in large doses and in conjunction with IVIg or prednisolone. Only use in life threatening bleeding (see below).

Management of life threatening bleed.

Discuss with Consultant Paediatrician and Consultant Haematologist.

Management:

1. IVIg
2. IV Methylprednisolone (10-30mg/kg; max 1g)
3. Large doses of platelets (usually 2-3 pools)
4. If suggestion of intracranial bleed, CT head

➢ ITP Registry

Consultant Paediatrician to consider consenting family for registration on ITP registry via

www.uk-itp.org

➢ Contacts

- Attending/On call Paediatric Consultant (via switchboard)
- On call Haematology Consultant (via switchboard)

➢ References (evidence upon which the guideline is based)

The American Society of Haematology 2011 evidence-based practice guidelines for immune thrombocytopenia. Neunert et al 2011 (accessed Nov 2015)
http://www.bloodmed.com/contentimage/guidelines/4007.pdf

International consensus report on the investigation and management of primary immune thrombocytopenia. Provan et al 2010
http://bloodjournal.hematologylibrary.org/content/115/2/168.full
(accessed Nov 2015)

- **Compliance with this guideline (how and when the guideline will be monitored e.g. audit and which committee the results will be reported to) Please use the tool provided at the end of this template**

To be completed and attached to any procedural document when submitted to the appropriate committee for consideration and approval

		Yes/No	Comments
1.	**Does the procedural document affect one group less or more favourably than another on the basis of:**		
	• Race	No	
	• Ethnic origins (including gypsies and travellers)	No	
	• Nationality	No	
	• Gender	No	
	• Culture	No	
	• Religion or belief	No	
	• Sexual orientation including lesbian, gay and bisexual people	No	
	• Age	No	
	• Disability - learning disabilities, physical disability, sensory impairment and mental health problems	No	
2.	**Is there any evidence that some groups are affected differently?**	No	
3.	**If you have identified potential discrimination, are any exceptions valid, legal and/or justifiable?**	No	
4.	**Is the impact of the procedural document likely to be negative?**	No	
5.	**If so can the impact be avoided?**	N/A	
6.	**What alternatives are there to achieving the procedural document without the impact?**	N/A	
7.	**Can we reduce the impact by taking different action?**	N/A	

If you have identified a potential discriminatory impact of this procedural document, please refer it to the Director of Human Resources, together with any suggestions as to the action required to avoid/reduce this impact.

For advice in respect of answering the above questions, please contact the Director of Human Resources.

Checklist for the Review and Approval of Procedural Document

To be completed and attached to any procedural document when submitted to the relevant committee for consideration and approval.

	Title of document being reviewed:	Yes/No	Comments
1.	**Title**		
	Is the title clear and unambiguous?	Yes	
	Is it clear whether the document is a guideline, policy, protocol or standard?	Yes	
2.	**Rationale**		
	Are reasons for development of the document stated?	Yes	
3.	**Development Process**		
	Is it clear that the relevant people/groups have been involved in the development of the document?	Yes	
	Are people involved in the development?	Yes	
	Is there evidence of consultation with stakeholders and users?	Yes	
4.	**Content**		
	Is the objective of the document clear?	Yes	
	Is the target population clear and unambiguous?	Yes	
	Are the intended outcomes described?	Yes	
5.	**Evidence Base**		
	Are key references cited in full?	Yes	
	Are supporting documents referenced?	N/A	
6.	**Approval**		
	Does the document identify which committee/ group will approve it?	Yes	
7.	**Dissemination and Implementation**		
	Is there an outline/plan to identify how this will be done?	Yes	

	Title of document being reviewed:	Yes/No	Comments
8.	**Document Control**		
	Does the document identify where it will be held?	Yes	
9.	**Process to Monitor Compliance and Effectiveness**		
	Are there measurable standards or KPIs to support the monitoring of compliance with and effectiveness of the document?	Yes	
	Is there a plan to review or audit compliance with the document?	Yes	
10.	**Review Date**		
	Is the review date identified?	Yes	
	Is the frequency of review identified? If so is it acceptable?	Yes	
11.	**Overall Responsibility for the Document**		
	Is it clear who will be responsible for co-ordinating the dissemination, implementation and review of the document?	Yes	

Executive Sponsor Approval			
If you approve the document, please sign and date it and forward to the author. Procedural documents will not be forwarded for ratification without Executive Sponsor Approval			
Name		Date	
Signature			
Relevant Committee Approval			
The Director of Nursing and Patient Experience's signature below confirms that this procedural document was ratified by the appropriate Governance Committee.			
Name		Date	
Signature			
Responsible Committee Approval – only applies to reviewed procedural documents with minor changes			
The Committee Chair's signature below confirms that this procedural document was ratified by the responsible Committee			
Name		Date	
Name of Committee		Name & role of Committee Chair	
Signature			

Tool to Develop Monitoring Arrangements for Policies and guidelines

What key element(s) need(s) monitoring as per local approved policy or guidance?	Who will lead on this aspect of monitoring? Name the lead and what is the role of the multidisciplinary team or others if any.	What tool will be used to monitor/check/observe/Asses s/inspect/ authenticate that everything is working according to this key element from the approved policy?	How often is the need to monitor each element? How often is the need complete a report ? How often is the need to share the report?	What committee will the completed report go to?
Element to be monitored	**Lead**	**Tool**	**Frequency**	**Reporting arrangements**
Appropriate use of active treatment.	**Dr Sen, Consultant Paediatrician**	**Audit**	**Every 3 years**	**PCGG**