**Haematology audit template**

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| **Date of completion**  | (To be inserted when completed) |
| **Name of lead author/participants** | (To be inserted) |
| **Specialty** | Haematology |
| **Title** | **An audit of compliance with the British Society for Haematology guideline on clinical and laboratory diagnosis of heritable platelet disorders in adults and children** |
| **Background** | The British Society for Haematology (BSH) has published guidance on clinical and laboratory diagnosis of heritable platelet disorders (HPDs). This audit will review compliance with some of the level 1 recommendations made. |
| **Aim & objectives** | To review whether patients being investigated for an HPD are: 1. undergoing appropriate testing following the correct procedures
2. being correctly diagnosed with confirmation and registration.
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| **Standards & criteria** | 100% or, if not achieved, there is documentation in the case notes that explains the variance (standards 4–11 relate to subgroups of patients only).1. All patients should have any medications that could affect platelet function discontinued 7–10 days before testing.
2. All samples showing an abnormal plot or an unexplained impedance-derived low platelet count should have an optical or fluorescence platelet count performed.
3. The mean platelet volume (MPV) should be reported routinely alongside the initial diagnostic assays.
4. The concentrations of agonists used in light transmission aggregometry should be sufficient to cause maximum aggregation of more than 50%, and no complete disaggregation in 95% of normal controls, except for low dose ristocetin (0.5 g/L) and normal saline.
5. All reports of light transmission aggregometry should include quantitative measures of aggregation with a subjective review of the shape of aggregation curves.
6. All numerical data reported from light transmission aggregometry should include local normal cut-off values, which should have been calculated using non-parametric statistics on 40 or more normal subjects.
7. All abnormal unexpected results for individual agonists should be repeated on a fresh sample taken on a separate day, to avoid making a confirmed diagnosis on a single result.
8. All patients suspected of having an HPD should be offered genetic analysis.
9. All patients considering genetic testing should undergo a consent process including discussion of the limitations and drawbacks of the methodology used, such as the possibility of variants of uncertain significance and incidental findings, and the implications for patients and family members.
10. All diagnoses should be confirmed in a haemophilia centre with expertise in diagnosing platelet disorders.
11. All confirmed cases should be registered in the National Haemophilia Database (NHD) and issued with a bleeding disorders card.
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| **Method** | **Sample selection:** All patients who were referred/investigated for a possible HPD in the preceding 12 months, up to a maximum of 30 consecutive patients**Data to be collected on proforma (see below).** |
| **Results** | (To be completed by the author)The results of this audit show the following compliance with the standards.

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| **Investigation** | **% compliance** |
| All patients had any medications that could affect platelet function discontinued 7–10 days before testing |  |
| All samples showing an abnormal plot or an unexplained impedance-derived low platelet count had an optical or fluorescence platelet count performed |  |
| Initial investigations included the MPV |  |
| The concentrations of agonists used in light transmission aggregometry caused maximum aggregation of more than 50%, and no complete disaggregation in 95% of normal controls, except for low dose ristocetin (0.5 g/L) and normal saline |  |
| All reports of light transmission aggregometry included quantitative measures of aggregation with a subjective review of the shape of aggregation curves |  |
| All numerical data reported from light transmission aggregometry included local normal cut-off values |  |
| All abnormal unexpected results for individual agonists were repeated on a fresh sample taken on a separate day |  |
| All patients suspected of having an HPD were offered genetic analysis |  |
| All patients having genetic testing gave consent  |  |
| All diagnoses were confirmed in a haemophilia centre with expertise in diagnosing platelet disorders |  |
| All confirmed cases were registered in the NHD and issued with a bleeding disorders card |  |

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| **Conclusion** | (To be completed by the author) |
| **Recommend-ations for improvement** | Present the result with recommendations, actions, and responsibilities for action and a timescale for implementation. Assign a person(s) responsible to do the work within a time frame.**Some suggestions:*** highlight areas of practice that are different
* present findings.
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| **Action plan** | (To be completed by the author – see attached action plan proforma) |
| **Re-audit date** | (To be completed by the author) |
| **Reference** | Gomez K, Anderson J, Baker P, Biss T, Jennings I, Lowe G *et al*. Clinical and laboratory diagnosis of heritable platelet disorders in adults and children. *Br J Haematol* 2021; doi:10.1111/bjh.17690.<https://onlinelibrary.wiley.com/doi/10.1111/bjh.17690> |

**Data collection proforma for clinical and laboratory diagnosis of
heritable platelet disorders**

**Audit reviewing practice**

Patient name:

Hospital number:

Date of birth:

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| Standard | **1****Yes**  | **2****No** | **3** If **Yes** not ticked, was there documentation to explain the variance?**Yes/No** plus free-text comment | **4** Compliant with guideline if **Yes** ticked or an appropriate explanation from column 3. **Yes/No**(Record if standard not applicable) |
| **For all patients investigated for a possible HPD**  |
| **1**  Had any medications that could affect platelet function discontinued 7–10 days before testing |  |  |  |  |
| **2**  For all samples showing an abnormal plot or an unexplained impedance-derived low platelet count, an optical or fluorescence platelet count was performed |  |  |  |  |
| **3**  Initial investigations included the MPV |  |  |  |  |
| **For patients undergoing light transmission aggregometry** |
| **4**  The concentrations of agonists used in light transmission aggregometry caused maximum aggregation of more than 50%, and no complete disaggregation in 95% of normal controls, except for low dose ristocetin (0.5 g/L) and normal saline |  |  |  |  |
| **5**  Report included quantitative measures of aggregation with a subjective review of the shape of aggregation curves |  |  |  |  |
| **6**  Numerical data reported included local normal cut-off values |  |  |  |  |
| **7**  For any unexpected abnormal results for individual agonists, the test was repeated on a fresh sample taken on a separate day |  |  |  |  |
| **For patients suspected of having an HPD** |
| **8**  Was offered genetic analysis |  |  |  |  |
| **9**  For those having genetic testing, consent was documented |  |  |  |  |
| **10**  The diagnosis was confirmed in a haemophilia centre with expertise in diagnosing platelet disorders |  |  |  |  |
| **11**  Patientswith a confirmed diagnosis were registered in the NHD and issued with a bleeding disorders card |  |  |  |  |

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| **Audit action plan**An audit of compliance with the British Society for Haematology guideline on clinical and laboratory diagnosis of heritable platelet disorders in adults and children |
| **Audit recommendation** | **Objective** | **Action** | **Time scale** | **Barriers and constraints** | **Outcome** | **Monitoring** |
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