THIOPURINE METABOLITE TESTING

Costing

- This test is considered the standard of care in the use of thiopurines. As is the case with “cutting-edge” tests and technology, currently there is no Medicare reimbursement for these tests.

- In most cases there will be an out of pocket expense for this test. Our prices are kept as low as possible to cover the associated laboratory and research costs only and to ensure the tests are available to as many patients as possible. Please contact us for current pricing of this test.

Reporting

- Reports are sent via the requesting Pathology Company and/or doctor.

Contact

- IBD Gastroenterology
  Laboratory Ph: 03 98954632
  email: ehcs.ibd@monash.edu
- Study is conducted by the Eastern Health Clinical School and the Department of Gastroenterology, Box Hill Hospital.

EXAMPLE OF REPORT

THIOPURINE METABOLITE TESTING

<table>
<thead>
<tr>
<th>Metabolite</th>
<th>Results</th>
<th>Reference Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>6-Thioguanine Nucleoside (6-TGN)</td>
<td>300</td>
<td>&lt;85-100 pmol/ml x 10^6 RBCs</td>
</tr>
<tr>
<td>6-Methylmercaptopurine (6-MMP)</td>
<td>1115</td>
<td>&lt;4.5 pmol/ml x 10^6 RBCs</td>
</tr>
<tr>
<td>6-MMP (6-TG) ratio</td>
<td>4</td>
<td>&lt;2 (1:1-2:1 &quot;optimal&quot;)</td>
</tr>
</tbody>
</table>

Note: Measurement of the thiopurine metabolites helps determine the reason for treatment failures with these drugs or may help understand and avoid toxicities. However, it does not replace the need to regularly monitor white blood cell counts for leukopenia and LFTs for the duration of therapy with thiopurines.

References:

Eastern Health Clinical School
IBD Gastroenterology Laboratory
Level 1, 5 Arnold Street
Box Hill VIC 3128
Tel:03 9895 4632
Email: ehcs.ibd@monash.edu

Website: http://www.med.monash.edu.au/ehcs/services/metabolite/index.html
Therapeutic Applications
A valuable tool in optimizing your patients’ thiopurine dose. This test is used routinely for:

1 | Dose Optimization when:
• Remission is not achieved on current dose - finding safe dosing
• Side effects experienced on current dose – determining dose reductions without losing efficacy
• Establishing if non-response or side effects are due to “shunting”
• Patient is “shunting”; to find the right thiopurine/allopurinol combination
  ‘For high risk patients; monitoring dose increases throughout treatment.

2 | Monitoring (non)adherence to thiopurine

3 | Establishing non-response
• No remission despite demonstrated high 6TGN levels? Avoid switching to other RX too early

Results
Samples are batched and testing is performed weekly. Testing takes several days and the turn around time for results is around 2 weeks.

Protocol for blood collection
A referral slip from any Pathology Company can be used however, the patient should have the blood test taken at one of the following pathology centres;
• Eastern Health
• Austin
• Royal Melbourne
• Northern Tasmanian Pathology
• Monash Health
• Royal Children’s
• St John of God Geelong
Ensure the following collection and transportation information is included on the slip:
1. Collect blood in 2 x EDTA tubes.
   DO NOT SPIN
2. Keep at 4 degrees Celsius
   DO NOT FREEZE
3. Transport to: Eastern Health Pathology
   Level 4, Box Hill Hospital
   Box Hill 3128
   Attention: IBD Gastro Lab

Please note the following
• There is NO time of day requirement for taking of blood samples.
• Whole blood is stable at 4 DEGREES. DO NOT FREEZE OR SPIN
• Transport to Eastern Health within the 4 day stability time frame.
• All bloods received outside the time frame will be discarded

F.A.Q
Q: Do the samples have to be taken at any particular time of day?
A: There is no need to consider the time medication was last taken.

Q: Is there any concession/Vet Affairs discount?
A: Unfortunately no.

Q: What if I need an urgent result sent through?
A: If the sample has been tested, the result can be faxed through to the Pathology Company requesting the test by calling the contact phone number.

Q: Can the test be bulk billed?
A: Unfortunately not at this time.

Q: What should I write on the pathology slip?
Please ensure the pathology slips clearly read Thiopurine Metabolite testing and are sent to:
Eastern Health Pathology
Level 4, Box Hill Hospital, VIC 3128
Attention: IBD Gastro Lab