CPT® Molecular Pathology Tier 2 Codes

Most recent changes to the CPT® Molecular Pathology Tier 2 Codes document

- Revision of code 81401 from the June 2017 CPT Editorial Panel meeting

This document contains new or revised codes for Molecular Pathology (MoPath) Tier 2 procedures that have been approved at the most recent CPT Editorial Panel meetings and are provided to facilitate accurate reporting of molecular pathology procedures.

To assist users in reporting the most recently approved MoPath Tier 2 codes, this document will be updated with early publication of these codes in July, January, and March in a given CPT cycle. These dates for early release coincide with completion of Panel actions following each of the three CPT Editorial Panel meetings in a given CPT cycle (May, October, and February). The table below details the publishing timelines for Category I MoPath Tier 2 codes.

### Category I Molecular Pathology Tier 2 Codes

<table>
<thead>
<tr>
<th>Panel Meeting Approval</th>
<th>Published to the AMA Website</th>
<th>Effective Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>February</td>
<td>March 1</td>
<td>July 1</td>
</tr>
<tr>
<td>May</td>
<td>July 1</td>
<td>January 1</td>
</tr>
<tr>
<td>October</td>
<td>January 1</td>
<td>July 1</td>
</tr>
</tbody>
</table>

For these codes, as well as other CPT codes, inclusion of a descriptor and its associated code number in the CPT code set does not represent endorsement by the AMA of any particular diagnostic procedure or service. Inclusion or exclusion of a procedure or service does not imply any health insurance coverage or reimbursement policy.

It is important to note that further CPT Editorial Panel or Executive Committee actions may affect these codes and/or descriptors. For this reason, code numbers and/or descriptor language may differ at the time of publication in the CPT codeset. In addition, further Panel actions may result in gaps in code number sequencing.
The following codes were revised at the May 2016 CPT Editorial Panel meeting for the 2018 CPT production cycle. These codes were effective on January 1, 2017.

<table>
<thead>
<tr>
<th>Code</th>
<th>Long Code Descriptor</th>
<th>Published to AMA Website</th>
<th>Effective Date</th>
<th>Publication</th>
</tr>
</thead>
</table>
| 81401 | Molecular pathology procedure, Level 2 (eg, 2-10 SNPs, 1 methylated variant, or 1 somatic variant [typically using nonsequencing target variant analysis], or detection of a dynamic mutation disorder/triplet repeat)  
HBB (hemoglobin, beta) (eg, sickle cell anemia, hemoglobin C, hemoglobin E), common variants (eg, HbS, HbC, HbE)                                                                 | July 1, 2016              | January 1, 2017      | CPT® 2018   |
| 81403 | Molecular pathology procedure, Level 4 (eg, analysis of single exon by DNA sequence analysis, analysis of >10 amplicons using multiplex PCR in 2 or more independent reactions, mutation scanning or duplication/deletion variants of 2-5 exons)  
HBB (hemoglobin, beta, beta-globin) (eg, beta-thalassemia), duplication/deletion analysis                                                                 | July 1, 2016              | January 1, 2017      | CPT® 2018   |
| 81404 | Molecular pathology procedure, Level 5 (eg, analysis of 2-5 exons by DNA sequence analysis, mutation scanning or duplication/deletion variants of 6-10 exons, or characterization of a dynamic mutation disorder/triplet repeat by Southern blot analysis)  
HBB (hemoglobin, beta, Beta-Globin) (eg, thalassemia), full gene sequence                                                                                                                                   | July 1, 2016              | January 1, 2017      | CPT® 2018   |
The following codes were revised at the September/October 2016 CPT Editorial Panel meeting for the 2018 CPT production cycle. These codes are effective on July 1, 2017.

<table>
<thead>
<tr>
<th>Code</th>
<th>Long Code Descriptor</th>
<th>Published to AMA website</th>
<th>Effective</th>
<th>Publication</th>
</tr>
</thead>
<tbody>
<tr>
<td>▲81400</td>
<td>Molecular pathology procedure, Level 1 (eg, identification of single germline variant [eg, SNP] by techniques such as restriction enzyme digestion or melt curve analysis)</td>
<td>January 1, 2017</td>
<td>July 1, 2017</td>
<td>CPT® 2018</td>
</tr>
<tr>
<td></td>
<td><strong>DPYD</strong> (dihydropyrimidine dehydrogenase) (eg, 5-fluorouracil/5-FU and capecitabine drug metabolism), <strong>IVS14+1G&gt;A variant</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Human Platelet Antigen 1 genotyping (HPA-1), ITGB3 (integrin, beta 3 [platelet glycoprotein IIla], antigen CD61 [GPIIla])</strong> (eg, neonatal alloimmune thrombocytopenia [NAIT], post-transfusion purpura), <strong>HPA-1a/b (L33P)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Human Platelet Antigen 2 genotyping (HPA-2), GP1BA (glycoprotein Iba [platelet], alpha polypeptide [GPIba])</strong> (eg, neonatal alloimmune thrombocytopenia [NAIT], posttransfusion purpura), <strong>HPA-2a/b (T145M)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Human Platelet Antigen 3 genotyping (HPA-3), ITGB2 (integrin, alpha 2b [platelet glycoprotein IIb/IIla complex], antigen CD41 [GPIIb])</strong> (eg, neonatal alloimmune thrombocytopenia [NAIT], post-transfusion purpura), <strong>HPA-3a/b (I843S)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Human Platelet Antigen 4 genotyping (HPA-4), ITGB3 (integrin, beta 3 [platelet glycoprotein IIla], antigen CD61 [GPIIla])</strong> (eg, neonatal alloimmune thrombocytopenia [NAIT], post-transfusion purpura), <strong>HPA-4a/b (R143Q)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Human Platelet Antigen 5 genotyping (HPA-5), ITGA2 (integrin, alpha 2b [platelet glycoprotein IIb/IIla complex], antigen CD41 [GPIIb])</strong> (eg, neonatal alloimmune thrombocytopenia [NAIT], post-transfusion purpura), <strong>HPA-5a/b (K505E)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Human Platelet Antigen 6 genotyping (HPA-6w), ITGB3 (integrin, beta 3 [platelet glycoprotein IIla], antigen CD61 [GPIIla])</strong> (eg, neonatal alloimmune thrombocytopenia [NAIT], post-transfusion purpura), <strong>HPA-6a/b (R489Q)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Human Platelet Antigen 9 genotyping (HPA-9), ITGB2 (integrin, alpha 2b [platelet glycoprotein IIb/IIla complex], antigen CD41 [GPIIb])</strong> (eg, neonatal alloimmune thrombocytopenia [NAIT], post-transfusion purpura), <strong>HPA-9a/b (V837M)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Human Platelet Antigen 15 genotyping (HPA-15), CD109 (CD109 molecule)</strong> (eg, neonatal alloimmune thrombocytopenia [NAIT], post-transfusion purpura), <strong>HPA-15a/b (S682Y)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>IL28B (interleukin 28B [interferon, lambda 3])</strong> (eg, drug response), <strong>rs12979860 variant</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>SLCO1B1 (solute carrier organic anion transporter family, member 1B1)</strong> (eg, adverse drug reaction), <strong>V174A variant</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The following codes were revised at the September/October 2016 CPT Editorial Panel meeting for the 2018 CPT production cycle. These codes are effective on July 1, 2017.

<table>
<thead>
<tr>
<th>Code</th>
<th>Long Code Descriptor</th>
<th>Published to AMA website</th>
<th>Effective</th>
<th>Publication</th>
</tr>
</thead>
<tbody>
<tr>
<td>▲81401</td>
<td>Molecular pathology procedure, Level 2 (eg, 2-10 SNPs, 1 methylated variant, or 1 somatic variant [typically using nonsequencing target variant analysis], or detection of a dynamic mutation disorder/triplet repeat)</td>
<td>January 1, 2017</td>
<td>July 1, 2017</td>
<td>CPT® 2018</td>
</tr>
<tr>
<td></td>
<td>* TPMT (thiopurine S-methyltransferase) (eg, drug metabolism), common variants (eg, *2, *3)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>* TYMS (thymidylate synthetase) (eg, 5-fluorouracil/5-FU drug metabolism), tandem repeat variant</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>▲81403</td>
<td>Molecular pathology procedure, Level 4 (eg, analysis of single exon by DNA sequence analysis, analysis of &gt;10 amplicons using multiplex PCR in 2 or more independent reactions, mutation scanning or duplication/deletion variants of 2-5 exons)</td>
<td>January 1, 2017</td>
<td>July 1, 2017</td>
<td>CPT® 2018</td>
</tr>
<tr>
<td></td>
<td>* IDH1 (isocitrate dehydrogenase 1 [NADP+], soluble) (eg, glioma), common exon 4 variants (eg, R132H, R132C)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>* IDH2 (isocitrate dehydrogenase 2 [NADP+], mitochondrial) (eg, glioma), common exon 4 variants (eg, R140W, R172M)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>▲81404</td>
<td>Molecular pathology procedure, Level 5 (eg, analysis of 2-5 exons by DNA sequence analysis, mutation scanning or duplication/deletion variants of 6-10 exons, or characterization of a dynamic mutation disorder/triplet repeat by Southern blot analysis)</td>
<td>January 1, 2017</td>
<td>July 1, 2017</td>
<td>CPT® 2018</td>
</tr>
<tr>
<td></td>
<td>* HBA1/HBA2 (alpha globin 1 and alpha globin 2) (eg, alpha thalassemia), duplication/deletion analysis</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The following codes were revised at the September/October 2016 CPT Editorial Panel meeting for the 2018 CPT production cycle. These codes are effective on July 1, 2017.

<table>
<thead>
<tr>
<th>Code</th>
<th>Long Code Descriptor</th>
<th>Published to AMA website</th>
<th>Effective</th>
<th>Publication</th>
</tr>
</thead>
<tbody>
<tr>
<td>▲81405</td>
<td>Molecular pathology procedure, Level 6 (eg, analysis of 6-10 exons by DNA sequence analysis, mutation scanning or duplication/deletion variants of 11-25 exons, regionally targeted cytogenomic array analysis) &lt;br&gt; <em>CPOX</em> (coproporphrinogen oxidase) (eg, hereditary coproporphyria), full gene sequence &lt;br&gt; <em>CTRC</em> (chymotrypsin C) (eg, hereditary pancreatitis), full gene sequence &lt;br&gt; <em>F9</em> (coagulation factor IX) (eg, hemophilia B), full gene sequence &lt;br&gt; <em>PKLR</em> (pyruvate kinase, liver and RBC) (eg, pyruvate kinase deficiency), full gene sequence</td>
<td>January 1, 2017</td>
<td>July 1, 2017</td>
<td>CPT® 2018</td>
</tr>
<tr>
<td>▲81406</td>
<td>Molecular pathology procedure, Level 7 (eg, analysis of 11-25 exons by DNA sequence analysis, mutation scanning or duplication/deletion variants of 26-50 exons, cytogenomic array analysis for neoplasia) &lt;br&gt; <em>HMBS</em> (hydroxymethylbilane synthase) (eg, acute intermittent porphyria), full gene sequence &lt;br&gt; <em>PPOX</em> (protoporphyrinogen oxidase) (eg, variegate porphyria), full gene sequence</td>
<td>January 1, 2017</td>
<td>July 1, 2017</td>
<td>CPT® 2018</td>
</tr>
</tbody>
</table>

The following code was revised at the February 2017 CPT Editorial Panel meeting for the 2018 CPT production cycle. This code is effective on July 1, 2017.

<table>
<thead>
<tr>
<th>Code</th>
<th>Long Code Descriptor</th>
<th>Published to AMA website</th>
<th>Effective</th>
<th>Publication</th>
</tr>
</thead>
<tbody>
<tr>
<td>▲81406</td>
<td>Molecular pathology procedure, Level 7 (eg, analysis of 11-25 exons by DNA sequence analysis, mutation scanning or duplication/deletion variants of 26-50 exons, cytogenomic array analysis for neoplasia) &lt;br&gt; <em>ANOS1 KAL1</em> (anosmin-1 Kallmann syndrome 1 sequence) (eg, Kallmann syndrome 1), full gene sequence</td>
<td>March 1, 2017</td>
<td>July 1, 2017</td>
<td>CPT® 2018</td>
</tr>
</tbody>
</table>

CPT is a registered trademark of the American Medical Association.  
Copyright 2017 American Medical Association. All rights reserved.  
Updated June 27, 2017
The following code was revised at the June 2017 CPT Editorial Panel meeting for the 2018 CPT production cycle. This code is effective on January 1, 2018.

<table>
<thead>
<tr>
<th>Code</th>
<th>Long Code Descriptor</th>
<th>Published to AMA Website</th>
<th>Effective Date</th>
<th>Publication</th>
</tr>
</thead>
</table>
| ▲81401 | Molecular pathology procedure, Level 2 (eg, 2-10 SNPs, 1 methylated variant, or 1 somatic variant [typically using nonsequencing target variant analysis], or detection of a dynamic mutation disorder/triplet repeat)  

  *LINC00518 (long intergenic non-protein coding RNA 518) (eg, melanoma), expression analysis*  

  *PRAME (preferentially expressed antigen in melanoma) (eg, melanoma), expression analysis*  | July 1, 2017                              | January 1, 2018          | CPT® 2018       |