

## Literature search strategies

### *PubMed: main search*

| Search no. | Keywords   |
|------------|--|
| 1          | randomi* controlled trial* OR RCT* OR non-randomi* controlled trial* OR clinical monitor* OR controlled clinical trial* OR case series OR case report* OR open stud* OR adverse drug reaction* OR drug interact* |
| 2          | azathioprin* OR 6-mercaptopurin* OR thiopurin* OR aza OR 6-MP OR thioguanin*   |
| 3          | skin disease* OR dermatology   |
| 4          | 1 AND 2 AND 3  |
| 5          | therap* drug monitor*  |
| 6          | 2 AND 5  |
| 7          | TPMT OR "thiopurine methyltransferase"   |
| 8          | 2 AND 7  |
| 9          | 7 AND dose [Limit: 1990-present]   |
| 10         | bullous OR sarcoid* OR vasculitis OR hand eczema OR systemic scleros* OR connective tissue disease* OR neutrophilic dermatos* OR hepatitis   |
| 11         | 2 AND 10   |
| 12         | monotherapy OR steroid spar* OR adjunct* OR hepatotoxic* OR hypersensitiv* OR myelosuppress* OR haematolog* OR bone marrow toxic* OR inflammator*  |
| 13         | 2 AND 12   |
| 14         | internal malignan*   |
| 15         | 2 AND 14   |
| 16         | 4 OR 6 OR 8 OR 9 OR 11 OR 13 OR 15   |
| 17         | Limit 16 to (English language and humans)  |

### *MEDLINE (Dialog DataStar): main search*

| Search no. | Keywords   |
|------------|--|
| 1          | randomi\$3 control\$3 trial\$1 OR RCT\$1 OR non-randomi\$3 control\$3 trial\$1 OR control\$3 clinical trial\$1 OR clinical monitor\$3 OR case series OR case report\$1 OR open stud\$3 OR adverse drug reaction\$1 OR drug interact\$4 |
| 2          | azathioprin\$ OR 6-mercaptopurin\$ OR thiopurin\$ OR aza OR 6-MP OR thioguanin\$   |
| 3          | skin disease\$1 OR dermatology   |
| 4          | 1 AND 2 AND 3  |
| 5          | therap\$5 drug monitor\$3  |
| 6          | 2 AND 5  |
| 7          | TPMT OR thiopurine methyltransferase   |

|    |   |
|----|---|
| 8  | 2 AND 7   |
| 9  | 7 AND dose [Limit: 1990-present]  |
| 10 | bullous OR sarcoid\$ OR vasculitis OR hand eczema OR systemic scleros\$ OR connective tissue disease\$1 OR neutrophilic dermatos\$ OR hepatitis             |
| 11 | 2 AND 10  |
| 12 | monotherapy OR steroid spar\$3 OR adjunct\$ OR hepatotoxic\$ OR hypersensitiv\$ OR myelosuppress\$ OR haematolog\$ OR bone marrow toxic\$3 OR inflammator\$ |
| 13 | 2 AND 12  |
| 14 | internal malignan\$   |
| 15 | 2 AND 14  |
| 16 | 4 OR 6 OR 8 OR 9 OR 11 OR 13 OR 15  |
| 17 | Limit 16 to (English language and humans)   |

*EMBASE (Dialog DataStar): dermatology search*

| Search no. | Keywords   |
|------------|--|
| 1          | randomi\$3 control\$3 trial\$1 OR RCT\$1 OR non-randomi\$3 control\$3 trial\$1 OR control\$3 clinical trial\$1 OR clinical monitor\$3 OR case series OR case report\$1 OR open stud\$3 OR adverse drug reaction\$1 OR drug interact\$4 |
| 2          | azathioprin\$ OR 6-mercaptopurin\$ OR thiopurin\$ OR aza OR 6-MP OR thioguanin\$   |
| 3          | skin disease\$1 OR dermatology   |
| 4          | 1 AND 2 AND 3  |
| 5          | therap\$5 drug monitor\$3  |
| 6          | 4 AND 5  |
| 7          | TPMT OR thiopurine methyltransferase   |
| 8          | 4 AND 7  |
| 9          | 7 AND dose [Limit: 1990-present]   |
| 10         | bullous OR sarcoid\$ OR vasculitis OR hand eczema OR systemic scleros\$ OR connective tissue disease\$1 OR neutrophilic dermatos\$ OR hepatitis  |
| 11         | 4 AND 10   |
| 12         | monotherapy OR steroid spar\$3 OR adjunct\$ OR hepatotoxic\$ OR hypersensitiv\$ OR myelosuppress\$ OR haematolog\$ OR bone marrow toxic\$3 OR inflammator\$  |
| 13         | 4 AND 12   |
| 14         | internal malignan\$  |
| 15         | 4 AND 14   |
| 16         | 6 OR 8 OR 9 OR 11 OR 13 OR 15  |
| 17         | Limit 16 to (English language and humans)  |

*EMBASE (Dialog DataStar): gastroenterology check*

| Search no. | Keywords   |
|------------|--|
| 1          | randomi\$3 control\$3 trial\$1 OR RCT\$1 OR non-randomi\$3 control\$3 trial\$1 OR control\$3 clinical trial\$1 OR clinical monitor\$3 OR case series OR case report\$1 OR open stud\$3 OR adverse drug reaction\$1 OR drug interact\$4 |
| 2          | azathioprin\$ OR 6-mercaptopurin\$ OR thiopurin\$ OR aza OR 6-MP OR thioguanin\$   |
| 3          | 1 AND 2  |
| 4          | gastroentero\$4  |
| 5          | 3 AND 4  |

*EMBASE (Dialog DataStar): thiopurine metabolising enzymes search*

| Search no. | Keywords   |
|------------|--|
| 1          | azathioprin\$ OR 6-mercaptopurin\$ OR thiopurin\$ OR aza OR 6-MP OR thioguanin\$ |
| 2          | GSTMI OR GSTM OR ITPA OR IMPD OR HPRT OR MTFHR                                   |
| 3          | 1 AND 2  |