**Chapter 8: Malignant Disease & Immunosuppression**

**KEY**

|  |  |
| --- | --- |
| **Status** | **Description** |
| http://tmpnlg.formulary.co.uk/images/TrafficLight.gifGreen | Green -Medicines suitable for routine use within primary care and Secondary care Can be initiated within primary care within their licensed indication, in accordance with nationally recognised formularies |
| http://tmpnlg.formulary.co.uk/images/TrafficLight.gifAmber | Amber- Medicines suitable to be prescribed in primary care after specialist /Consultant recommendation or initiation. A supporting prescribing guideline may be requested which must have been agreed by the relevant secondary care trust Medicines and Therapeutic Committee and approved by the Area Prescribing Committee. |
| http://tmpnlg.formulary.co.uk/images/TrafficLight.gifRed | Red-Hospital initiation and continuation only |
| http://tmpnlg.formulary.co.uk/images/TrafficLight.gifAmber Shared Care Protocol | AMBER SHARE CARE PROTOCOL- Medicines that should be initiated by a specialist and prescribed by primary care prescribers only under a shared care protocol, once the patient has been stabilised |
| http://tmpnlg.formulary.co.uk/images/TrafficLight.gifGreen 2 | GREEN 2- to be prescribed by primary care only |
| http://tmpnlg.formulary.co.uk/images/TrafficLight.gifGrey | GREY- NON FORMULARY |

**8.1 Cytotoxic drugs**

**8.1.1 Alkylating drugs**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Remain | Remove | Supporting information |
| i. Cyclophosphamide Tablets, Injection. Hospital Initiated Only |  |  | No epact data |
| ii. Busulfan Tablets. Hospital Only |  |  |  |
| iii. Carmustine Injection. Hospital Only |  |  |  |
| iv. Chlorambucil Tablets. Hospital Only |  |  |  |
| v. Chlormethine (Mustine) Injection. Hospital Only |  |  |  |
| vi. Estramustine Capsules. Hospital Only |  |  |  |
| vii. Ifosfamide Injection. Hospital Only |  |  |  |
| viii. Lomustine Capsules. Hospital Only |  |  |  |
| ix. Melphalan Tablets. Hospital Only |  |  |  |
| x. Thiotepa Injection. Hospital Only |  |  |  |
| xi. Treosulfan Capsules. Hospital Only |  |  |  |
| xii. Bendamustine. Hospital Only [NICE TA216](http://guidance.nice.org.uk/TA216) |  |  |  |

**8.1.2 Cytotoxic antibiotics**

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
| i. Bleomycin Injection. Hospital Only |  |  |  |
| ii. Dactinomycin (Actinomycin D) Injection. Hospital Only |  |  |  |
| iii. Daunorubicin Injection. Hospital Only |  |  |  |
| iv. Doxorubicin Injection, Liposomal Injection. Hospital Only |  |  |  |
| v. Epirubicin Injection. Hospital Only |  |  |  |
| vi. Idarubicin Capsules, Injection. Hospital Only |  |  |  |
| vii. Mitomycin Injection. Hospital Only |  |  |  |
| viii. Mitoxantrone Injection. Hospital Only |  |  |  |
| ix. Pixantrone Injection. Hospital Only NICE TA306 |  |  |  |

**8.1.3 Anti-metabolites**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Remain | remove | Other information |
| . Mercaptopurine Tablets. Hospital Initiated Only |  |  | Amber for Ulcerative colitis as per shared care protocol |
| ii. Methotrexate Injection, Tablets. Hospital Initiated Only |  |  | Possibly amber for certain conditions such as rheumatology awaiting ratification for shared care protocols |
| iii. Flurouracil Cream. Hospital Initiated Only |  |  | Possibly amber pending discussion with skin clinical lead |
| iv. Flurouracil Injection. Hospital Initiated Only |  |  |  |
| vi. Calcium Folinate Injection. Hospital Only |  |  |  |
| vii. Calcium Folinate Tablets. Hospital Only |  |  |  |
| viii. Capecitabine Tablets. Hospital Only |  |  |  |
| ix. Fludarabine Tablets. Hospital Only |  |  |  |
| x. Cladribine Subcutaneous Injection. Hospital Only |  |  |  |
| xi. Cytarabine Injection. Hospital Only |  |  |  |
| xii. Fludarabine Injection. Hospital Only |  |  |  |
| xiii. Gemcitabine Injection. Hospital Only |  |  |  |
| xiv. Raltitrexed Injection. Hospital Only |  |  |  |
| xv. Tioguanine (Thioguanine) Tablets. Hospital Only |  |  |  |
| xvi. Tegafur/Uracil Capsules. Hospital Only |  |  |  |
| xvii. Azacitidine. Hospital Only, NICE TA218 |  |  |  |
| xviii. Pemetrexed. Hospital Only, NICE [TA181](http://guidance.nice.org.uk/TA181) & [TA190](http://guidance.nice.org.uk/TA190) |  |  |  |

**8.1.4 Vinca alkaloids and Etoposide**

|  |  |  |  |
| --- | --- | --- | --- |
|  | remain | Remove | Supporting information |
| i. Vinblastine Injection. Hospital Only |  |  |  |
| ii. Vincristine Injection. Hospital Only |  |  |  |
| iii. Vindesine Injection. Hospital Only |  |  |  |
| iv. Vinorelbine Injection, Capsules. Hospital Only |  |  |  |
| v. Etoposide Capsules, Injection. Hospital Only |  |  |  |
| vi. Vinflunine Injection. Hospital Only, NICE TA272 |  |  |  |

**8.1.5 Other Antineoplastic Drugs**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Remain | remove | Supporting information |
| i. Hydroxycarbamide (Hydroxyurea) Capsules |  |  | Double check epact –potentially amber for specific indications |
| ii. Altretamine Capsules. Hospital Only |  |  |  |
| iii. Amsacrine Injection. Hospital Only |  |  |  |
| iv. Carboplatin Injection. Hospital Only |  |  |  |
| v. Cisplatin Injection. Hospital Only |  |  |  |
| vi. Crisantaspase Injection. Hospital Only |  |  |  |
| vii. Dacarbazine Injection. Hospital Only |  |  |  |
| viii. Docetaxel Injection. Hospital Only |  |  |  |
| ix. Erlotinib Tablets. Use as per HEYHCA Guidelines and NICE TA374 |  |  |  |
| x. Gefitinib Tablets. Use as per HEYHCA Guidelines and NICE TA374 |  |  |  |
| xi. Imatinib Tablets. Use as per HEYHCA Guidelines and NICE TA425 & NICE TA426 |  |  |  |
| xii. Lapatinib Tablets. Use as per HEYHCA Guidelines |  |  |  |
| xiii. Nilotinib Capsules. Use as per HEYHCA Guidelines and NICE TA425 & NICE TA426 |  |  |  |
| xiv. Trastuzumab. Use as per HEYHCA Guidelines |  |  |  |
| xv. Irinotecan Injection. Hospital Only |  |  |  |
| xvi. Oxaliplatin Injection. Hospital Only |  |  |  |
| xvii. Pazopanib Tablets. Use as per NICE Guidelines, Hospital Only |  |  |  |
| xviii. Paclitaxel Injection. Hospital Only. NICE TA389 |  |  |  |
| xix. Pentostatin Injection. Hospital Only |  |  |  |
| xx. Procarbazine Capsules. Hospital Only |  |  |  |
| xxi. Temozolomide Capsules. Hospital Only |  |  |  |
| xxii. Tretinoin Capsules. Hospital Only |  |  |  |
| xxiii. Cabazitaxel. Hospital Only, NICE TA255 |  |  |  |
| xxiv. Eribulin. Hospital Only, NICE TA250 |  |  |  |
| xxv. Bevacizumab. Hospital Only, NICE TA242 & TA214 |  |  |  |
| xxvi. Panitumumab. Hospital Only, NICE TA242 |  |  |  |
| xxvii. Bortezomib. Hospital Only, NICE TA228 & TA311 |  |  |  |
| xxviii. Trabectedin. Hospital Only, NICE TA389 & TA185 |  |  |  |
| xxix. Topotecan (Oral). Hospital Only, NICE TA183 & TA184 |  |  |  |
| xxx. Sunitinib. Hospital Only, NICE TA179 |  |  |  |
| xxxi. Cetuximab. Hospital Only, NICE TA176 |  |  |  |
| xxxii. Sorafenib. Hospital Only, NICE TA178 |  |  |  |
| xxxiii. Temsirolimus. Hospital Only, NICE TA178 |  |  |  |
| xxxiv. Trastuzumab. Hospital Only, NICE TA34 |  |  |  |
| xxxv. Ipilimumab. Hospital Only, NICE TA268 and TA319 |  |  |  |
| xxxvi. Afatinib. Hospital Only, NICE TA310 |  |  |  |
| xxxvii. Nintedanib Capsules. Hospital Only, NICE TA347 and NICE TA379 |  |  |  |
| xxxviii. Idelalisib. Hospital Only, NICE TA359 |  |  |  |
| xxxix. Panobinostat. Hospital Only, NICE TA380 |  |  |  |
| xl. Olaparib Capsules. Hospital Only, NICE TA381 |  |  |  |
| xli. Ruxolitinib Tablets. Hospital Only. NICE TA386 |  |  |  |
| xlii. Gemcitabine Infusion. Hospital Only. NICE TA389 |  |  |  |
| xliii. Trabectedin Infusion. Hospital Only. NICE TA389 |  |  |  |
| xliv. Everolimus Tablets, NICE TA432 |  |  |  |
| xlv Dasatinib NICE TA425 & NICE TA426 |  |  |  |

Adalimumab, certolizumab pegol, etanercept, golimumab and infliximab have received the NICE Technology Appraisal [TA383](https://www.nice.org.uk/guidance/ta383) and can be used as per TA383 in hospital settings only.

Adalimumab, etanercept, infliximab, certolizumab pegol, golimumab, tocilizumab and abatacept for rheumatoid arthritis not previously treated with DMARDs or after conventional DMARDs only have failed as per [NICE TA 375](https://www.nice.org.uk/guidance/ta375)

**8.1.6 Taxanes**

|  |  |  |  |
| --- | --- | --- | --- |
|  | remain | remove | Supporting information |
| i. Paclitaxel Injection 6mg/ml, 5ml vial, 16.7ml and 50ml vial. Hospital Only |  |  |  |
| ii. Docetaxel Injection 40mg/ml, 0.5ml vial, 2ml vial. Hospital Only |  |  |  |

**8.2 Drugs affecting the immune response**

**8.2.1 Antiproliferative Immunosuppressants**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Remain | remove | Supporting information |
| i. Azathioprine Tablets 25mg, 50mg. Hospital Initiated Only |  |  | Criteria dependent ? potentially amber |
| ii. Mycophenolate Mofetil. Hospital Initiated Only |  |  |  |
| iii. Mycophenolic Acid. Hospital Initiated Only |  |  |  |

**8.2.2 Corticosteroids and other immunosuppressants**

|  |  |  |  |
| --- | --- | --- | --- |
|  | remain | remove | Supporting information |
| i. Ciclosporin Capsules 10mg, 25mg, 50mg, 100mg. Hospital Initiated Only |  |  | As per NHS England criteria |
| ii. Tacrolimus Capsules 500 micrograms. Hospital Initiated Only |  |  | Double check where nearest transplant centre is and try and obtain shared care guidance |
| iii. Ciclosporin Oral solution 100mg/ml, 50ml. Hospital Initiated Only |  |  |  |
| iv. Ciclosporin Concentrate for IV Infusion 50mg/ml. Hospital Only |  |  |  |
| v. Sirolimus Tablets, Oral solution. Hospital Initiated Only |  |  |  |
| vi. Basiliximab. Hospital Only, NICE TA99 |  |  |  |

**8.2.3 Rituximab and Alemtuzumab**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Remain | remove | Supporting information |
| i. Alemtuzumab Injection. Hospital Only, NICE TA312 |  |  | Biosimilar switch information to be obtained by Paulash Haider |
| ii. Rituximab 100mg, 500mg vial & 1400mg SC Injection. Hospital Only | Truxima –rheumatology  Mabthera-only available as subcutaneous injection, and for haematology  Rixathon I.V. for haematology patients |  |  |
| iii. Ofatumumab. Hospital Only, NICE TA202 and NICE TA344 |  |  |  |
| iv. Obinutuzumab 25mg/ml, 40mg Vial. Hospital Only, NICE TA343 |  |  |  |
| v. Nivolumab Injection. Hospital Only, NICE TA384 |  |  |  |

**8.2.4 Other Immunomodulating Drugs**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Remain | remove | Supporting information |
| i. Interferon-Roferon A. Hospital Only |  |  |  |
| ii. Peginterferon, ViraferonPeg. Hospital Only |  |  |  |
| iii. Peginterferon-alfa 2a, Pegasys. Hospital Only |  |  |  |
| iv. Thalidomide Pharmion. Hospital Only |  |  |  |
| v. Lenalidomide Capsules. Hospital Only, NICE TA322 |  |  |  |
| vi. Fingolimod. Hospital Only, NICE TA254 |  |  |  |
| vii. Mifamurtide. Hospital Only, NICE TA235 |  |  |  |
| viii. Natalizumab. Hospital Only, NICE TA127 |  |  |  |
| ix. Teriflunomide. Hospital Only, NICE TA303 |  |  |  |
| ix. Pembrolizumab. Hospital Only, NICE TA357 |  |  |  |

**8.3 Sex hormones and hormone antagonists in malignant disease**

**8.3.1 Oestrogens**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Remain | Remove | Supporting information |
| i. Diethylstilbestrol (Stilboestrol) Tablets 1mg, 5mg. Hospital Initiated Only |  |  | No use in ccg ? use in hospital |
| ii. Estradiol Valerate Tablets 1mg. Hospital Initiated Only |  |  | Look into use |
| iii. Ethinylestradiol Tablets 10 mcg, 50 mcg, 1000mcg. Hospital Initiated Only |  |  |  |
| iv. Degarelix (NICE TA404) Hospital Only |  |  |  |

**8.3.2 Progestogens**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Remain | Remove | Supporting Information |
| i. Medroxyprogesterone Acetate Tablets 100mg, 250mg. Hospital Initiated Only |  |  | Green under chapter 7  Subject to indication |
| ii. Megestrol Acetate Tablets 40mg, 160mg. Hospital Initiated Only |  |  |  |
| iii. Medroxyprogesterone Acetate Injection 500mg vial. Hospital Initiated Only |  |  |  |
| iv. Norethisterone Tablets 5mg. Hospital Initiated Only |  |  | Green under chapter 7 |

**8.3.3 Androgens**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Remain | Remove | Supporting information |
| i. Testosterone (mixed esters) Injection 100mg/ml, 250mg/ml. Hospital Initiated Only | Used in patch trials |  | Double if form is still available and what it is used for |

**8.3.4 Hormone antagonists**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Remain | Remove | Supporting Information |
| i. Radium-223 Dichloride |  |  |  |

**8.3.4.1 Breast cancer**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Remain | Remove | Supporting Information |
| i. Anastrozole Tablets 1mg. Hospital Initiated Only |  |  |  |
| ii. Tamoxifen Tablets 10mg, 20mg. Hospital Initiated Only |  |  |  |
| iii. Letrozole Tablets. Hospital Initiated Only |  |  |  |
| iv. Exemestane Tablets 25mg. Hospital Initiated Only |  |  |  |
| v. Fulvestrant 250mg Injection. Use as per HEYHCA Guidelines Only |  |  |  |
| vi. Toremifene Tablets 60mg. Hospital Initiated Only |  |  |  |

**8.3.4.2 Gonadorelin analogues and gonadotrophin-releasing hormone antagonists**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Remain | Remove | Supporting Information |
| i. Leuprorelin Injection 3.75mg, 11.25mg. Hospital Initiated Only |  |  |  |
| ii. Bicalutamide Tablets 50mg, 150mg. Hospital Initiated Only |  |  |  |
| iii. Goserelin Injection 3.6mg, 10.8mg. Hospital Initiated Only |  |  |  |
| iv. Cyproterone Tablets 50mg. Hospital Initiated Only |  |  | Subject indication and criteria |
| v. Flutamide Tablets 250mg. Hospital Initiated Only |  |  | Epact data |
| vi. Buserelin Nasal Spray. Hospital Initiated Only |  |  | Epact dat |
| vii. Abiraterone Tablets 250mg. Hospital Initiated Only. As Per NICE TA387 |  |  |  |
| viii. Enzalutamide 40mg Capsules. Hospital Only. As Per NICE TA316 and NICE TA377 |  |  |  |
| ix Degarelix NICE TA404 |  |  |  |

**8.3.4.3 Somatostatin analogues**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Remain | Remove | Supporting information |
| i. Lanreotide Injection. Hospital Initiated Only |  |  | Double check use in ccg ? |
| ii. Octreotide Injection 50 mcg/ml, 100 mcg/ml. Hospital Initiated Only |  |  |  |
| iii. Octreotide (Sandostatin LAR). Hospital Initiated Only |  |  |  |