

# WHO Model List of Essential Medicines (EML)

A collaborative review of cancer medicines by the Union for International Cancer Control (UICC) and the World Health Organization (WHO)

## 2015 WHO MODEL LIST OF ESSENTIAL MEDICINES REVIEW

### WHO Model List of Essential Medicines

Updated every two years by a dedicated Expert Committee since its inception in 1977, the WHO Model List of Essential Medicines (EML) provides an internationally recognisable set of selected medicines to help countries choose how to treat their priority health needs.

### A new partnership in support of the expert committee process

A series of monthly discussions between WHO and UICC in 2014 resulted in a coordinated plan to review medicines for the treatment of specific cancers. The UICC convened a team of experts to review the standard anti-neoplastic treatment regimens for 29 diseases and generated new evidence-based proposals for addition of essential cancer medicines to the WHO EML.

The proposals were considered by a specially convened WHO Working Group on New Cancer Medicines responsible for reviewing consistency of approach and evidence synthesis.

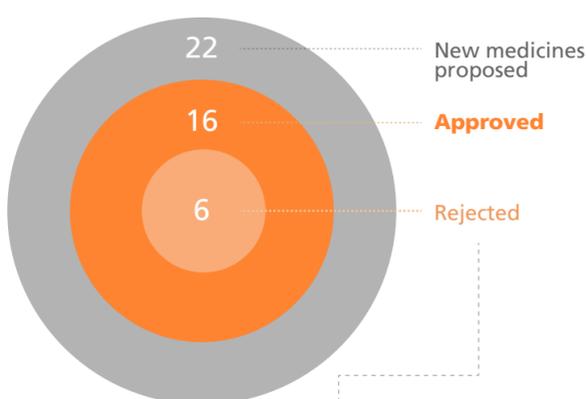
### WHO EML Secretariat and UICC

Cancers included were those for which the goal of systemic treatment is cure or long-term remission (even if low incidence), and cancers with high incidence where treatment produces a clinically relevant survival benefit.

A new disease-based format was agreed between the EML Secretariat and UICC with specific emphasis given to the relevance of benefit as demonstrated by the available evidence as a guiding principle to identify the medicines to be proposed for EML inclusion.

The result was a **proposed list of 52 essential cancer medicines** to be considered by the WHO Expert Committee on Selection and Use of Essential Medicines. **22 of these medicines had not previously been included** on the WHO EML.

## WHAT'S NEW



- Policy makers and cancer planners have a foundation on which to base their national EMLs in response to the NCD Global Action Plan target of 80% availability of essential medicines and technologies for NCDs by 2025
- The update facilitates volume prediction and allow for supply chain planning and strengthening

**18**  
New types of cancer can be treated

### WHO Model EML for Adults 19<sup>th</sup> edition

New cancer medicines added: 16  
New diseases addressed: 11  
Cancer medicines total: 46  
Diseases addressed total: 29

### WHO Model EML for Children 5<sup>th</sup> edition

New cancer medicines added: 10  
New diseases addressed: 7  
Cancer medicines total: 26  
Diseases addressed total: 10

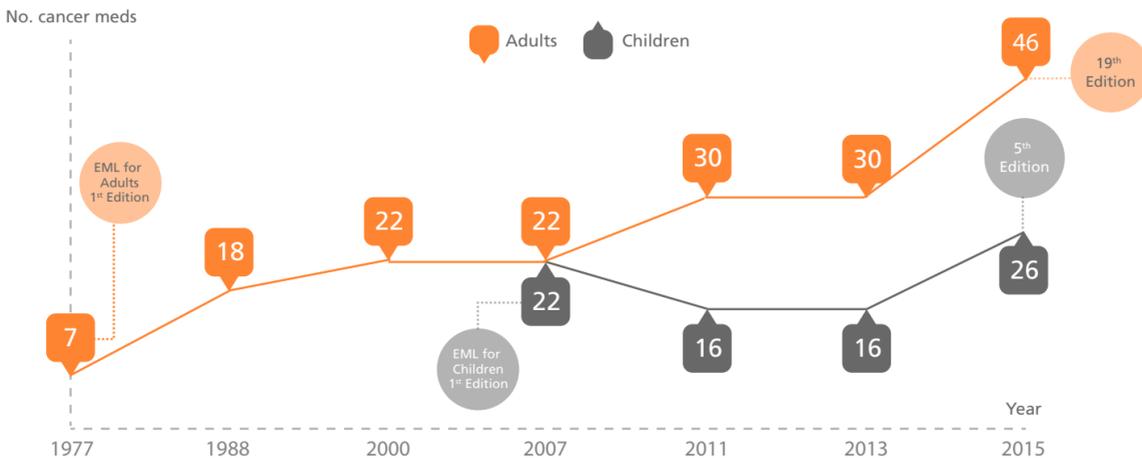
## WAY FORWARD

A process and timelines for continuous update of the WHO EML cancer section is being elaborated by WHO, with UICC's support

The WHO and UICC approved a disease-based framework to be used for future reviews of the cancer section of the WHO EML

UICC will encourage policy makers and cancer planners in countries to use this framework at national level

## EVOLUTION OF THE WHO MODEL EML FOR CANCER MEDICINES



## ADDITIONS IN 2015

### Adults 19<sup>th</sup> edition

- |  |  |
|--|--|
| <b>Anastrozole</b><br>Early stage breast cancer<br>Metastatic breast cancer  | <b>Filgrastim</b><br>Primary and secondary prophylax. neutropenia<br>Chemotherapy facilitator            |
| <b>ATRA</b><br>Acute promyelocytic leukemia  | <b>Fludarabine</b><br>Chronic lymphocytic leukemia   |
| <b>Bendamustine</b><br>Chronic lymphocytic leukemia<br>Follicular lymphoma   | <b>Gemcitabine</b><br>Epithelial ovarian cancer<br>Non-small cell lung cancer                            |
| <b>Bicalutamide</b><br>Metastatic prostate cancer  | <b>Oxaliplatin</b><br>Early stage colon cancer<br>Metastatic colorectal cancer                           |
| <b>Capecitabine</b><br>Early stage colon cancer<br>Early stage rectal cancer<br>Metastatic breast cancer<br>Metastatic colorectal cancer                             | <b>Rituximab</b><br>Chronic lymphocytic leukemia<br>Diffuse large b-cell lymphoma<br>Follicular lymphoma |
| <b>Imatinib</b><br>Chronic myeloid leukemia<br>Gastrointestinal stromal tumour   | <b>Trastuzumab</b><br>Early stage her2+ breast cancer<br>Metastatic her2+ breast cancer                  |
| <b>Irinotecan</b><br>Metastatic colorectal cancer  | <b>Vinorelbine</b><br>Early stage breast cancer<br>Metastatic breast cancer                              |
| <b>Cisplatin</b><br>Cervical cancer<br>Head and neck cancer<br>Non-small cell lung cancer<br>Osteosarcoma<br>Ovarian germ cell tumour<br>Testicular germ cell tumour | <b>Leoporelin</b><br>Early stage breast cancer<br>Metastatic breast cancer                               |

30 medicines previously included  
allopurinol; asparaginase; bleomycin; calcium folinate; carboplatin; chlorambucil; cyclophosphamide; cytarabine; dacarbazine; dactinomycin; daunorubicin; dexamethasone; docetaxel; doxorubicin; etoposide; fluorouracil; hydrocortisone; hydroxycarbamide; ifosfamide; mercaptopurine; mesna; methotrexate; methylprednisolone; paclitaxel; prednisolone; procarbazine; tamoxifen; thioguanine; vinblastine; vincristine

### Children 5<sup>th</sup> edition

- |   |   |
|---|---|
| <b>Bleomycin</b><br>Hodgkin lymphoma<br>Testicular germ cell tumour<br>Ovarian germ cell tumour   | <b>Ifosfamide</b><br>Osteosarcoma<br>Rhabdomyosarcoma<br>Ewing sarcoma<br>Testicular germ cell tumour<br>Ovarian germ cell tumour |
| <b>Calcium Folate</b><br>Osteosarcoma<br>Burkitt lymphoma   | <b>Paclitaxel</b><br>Ovarian germ cell tumour   |
| <b>Carboplatin</b><br>Osteosarcoma<br>Burkitt lymphoma  | <b>Vinblastine</b><br>Testicular germ cell tumour<br>Ovarian germ cell tumour   |
| <b>Cisplatin</b><br>Osteosarcoma<br>Testicular germ cell tumour<br>Ovarian germ cell tumour   |   |
| <b>Dacarbazine</b><br>Hodgkin lymphoma  |   |
| <b>Etoposide</b><br>Retinoblastoma<br>Ewing sarcoma<br>Acute lymphoblastic leukemia<br>Burkitt lymphoma<br>Hodgkins lymphoma<br>Testicular germ cell tumour<br>Ovarian germ cell tumour |   |
| <b>Filgrastim</b><br>Primary and secondary prophylax. neutropenia<br>Chemotherapy facilitator   |   |

16 medicines previously included  
allopurinol; asparaginase; cyclophosphamide; cytarabine; dactinomycin; dexamethasone; doxorubicin; daunorubicin; hydrocortisone; mercaptopurine; mesna; methotrexate; methylprednisolone; prednisolone; thioguanine; vincristine

## SPECIAL THANKS

Special thanks to the nearly 100 volunteer experts who contributed from across the world



UICC would like to thank the Livestrong Foundation and National Cancer Institute USA, Centre for Global Health, for financial contributions to this work



For any questions, please contact:  
map@uicc.org  
www.uicc.org

UNION FOR INTERNATIONAL CANCER CONTROL  
UNION INTERNATIONALE CONTRE LE CANCER  
62 route de Frontenex, 1207 Geneva, Switzerland  
Tel +41 (0)22 809 1811 Fax +41 (0)22 809 1810 Email info@uicc.org