Publications and events

Research and development

WHO publishes priority list of antibiotic-resistant pathogens
Geneva – WHO has published its first-ever list of antibiotic-resistant “priority pathogens” that pose the greatest threat to human health. The list was drawn up in a bid to guide and promote research and development (R&D) of new antibiotics, as part of WHO’s efforts to address growing global resistance to antimicrobial medicines. The issue of antimicrobial resistance is to be brought to the attention of the G20 health experts at their meeting in Berlin in early March 2017.

The list is reproduced below. It highlights in particular the threat of gram-negative bacteria that are resistant to multiple antibiotics.

WHO priority pathogens list for R&D of new antibiotics
Priority 1: CRITICAL
• *Acinetobacter baumannii*, carbapenem-resistant
• *Pseudomonas aeruginosa*, carbapenem-resistant
• *Enterobacteriaceae*, carbapenem-resistant, ESBL-producing

Priority 2: HIGH
• *Enterococcus faecium*, vancomycin-resistant
• *Staphylococcus aureus*, methicillin-resistant, vancomycin-intermediate and resistant
• *Helicobacter pylori*, clarithromycin-resistant
• *Campylobacter* spp., fluoroquinolone-resistant
• *Salmonella*, fluoroquinolone-resistant
• *Neisseria gonorrhoeae*, cephalexin-resistant, fluoroquinolone-resistant

Priority 3: MEDIUM
• *Streptococcus pneumoniae*, penicillin-non-susceptible
• *Haemophilus influenzae*, ampicillin-resistant
• *Shigella* spp., fluoroquinolone-resistant

Tuberculosis – whose resistance to traditional treatment has been growing in recent years – was not included because it is targeted by other, dedicated programmes.(1) WHO has stressed the urgent need for R&D for drug-resistant tuberculosis in a separate statement.(2)

(2) WHO News release, 28 February 2017.

Access to medicines

Intellectual property rules amended to ease global access to medicines
Geneva – An amendment to the WTO Trade Related Aspects of Intellectual Property Rights (TRIPS) Agreement entered into force on 23 January 2017, securing for developing countries a legal pathway to access affordable medicines under WTO rules. As two-thirds of the WTO members have ratified the amendment, the threshold has been reached which was needed to formally amend the TRIPS Agreement. The amendment empowers importing developing and least-developed countries facing public health problems and lacking the capacity to generic medicines to seek such medicines from third country producers under compulsory licensing arrangements.

OECD reports on health spending and new technologies

London – The Organisation for Economic Co-operation and Development (OECD) has launched two reports that show how pharmaceutical spending is increasingly skewed towards high-cost products and technologies, with little or no benefits for people's health. In some cases there is even a risk of worse health outcomes.

The first report recommends strategies for countries to spend significantly less on health care while maintaining health system performance and health outcomes. The second report provides analyses on the adoption and impact of medical technology and identifies opportunities to optimize their use in health systems. It discusses the need for an integrated and cyclical approach to managing health technology in order to mitigate clinical and financial risks and ensure acceptable value for money. A new governance framework is proposed to address current challenges faced by policymakers.

Calls for changes to European Commission’s R&D programme

Amsterdam – Health Action International has released a joint position paper calling upon the European Commission to make substantial changes to how it funds research and development (R&D) projects for new medicines to allow for greater public access. The paper highlights the EU’s responsibility to ensure public returns on its R&D investments, reducing the major inequalities that persist in the quality of healthcare available in EU Member States.

The call comes after the Commission's public consultation for the mid-term review of the European Union's (EU) Research and Innovation programme, Horizon 2020, which administers a funding pool of nearly €80 billion. At a time when there is general concern over high prices for new medicines such as cancer and hepatitis C products, the joint paper has been endorsed by many humanitarian groups.

Using human rights law to support access to medicines

Two recent articles highlight the human rights approach to reimbursing expensive medicines. In the first article, the authors argue that while all patients have an equal right to access essential medicines, the order and timing of its fulfilment is gradual. This justifies ranking treatments for reimbursement, with more cost-effective treatments being included first.

The second article looks at thirteen national constitutions that include a state duty to provide access to essential medicines as part of the right to health. Nine of these constitutions were amended or adopted after 2008. The research was conducted under a collaboration between the Medical Centre and the Faculty of Law at the University of Groningen in the Netherlands.

References:


First MPP licence for anti-tuberculosis medicine

Geneva – The Medicines Patent Pool (MPP) has signed a licence with Johns Hopkins University to facilitate the clinical development of sutezolid, an investigational antibiotic that has shown promise in the treatment of both drug-sensitive and drug-resistant tuberculosis. The exclusive, royalty-free licence covers all countries that have patents issued or pending for a combination therapy comprising sutezolid and two additional anti-tuberculosis medicines. The patent for sutezolid expired in 2014, but the patent for the use of sutezolid in combination therapy for tuberculosis – held jointly by Pfizer Inc and Johns Hopkins University – is valid until August 2029 in the countries in which it was filed.\(^{(1)}\)

Public health groups have welcomed the move but warn that the deal lacks safeguards that would ensure worldwide affordability. They have also called on Pfizer and Sequella, who hold secondary patents and clinical data on sutezolid, to provide open access to all existing data.\(^{(2)}\)


Medicines control

Papillomavirus vaccine review documents published

A paper published in the Indian Journal of Medical Ethics makes available the procedural documents that were used in the EMA’s review of human papillomavirus (HPV) vaccine. The review, which was completed in November 2015, found that there was no evidence of an association between the HPV vaccines and two dysautonomic syndromes (complex regional pain syndrome and postural orthostatic tachycardia syndrome), despite the existence of independently clustered reports (signals). The paper reveals the process that led to the conclusions of the EMA review.

\[^{1}\] Jefferson T, Jørgensen L. Human papillomavirus vaccines, complex regional pain syndrome, postural orthostatic tachycardia syndrome, and autonomic dysfunction – a review of the regulatory evidence from the European Medicines Agency [Published online]. IJME. 2016; 2 (1 (NS)), 30.

New CIOMS guide on active vaccine surveillance

Geneva – The Council for International Organizations of Medical Sciences (CIOMS) has announced the publication of its Guide to Active Vaccine Safety Surveillance. The Guide addresses the situation facing national immunization programmes and regulatory authorities when a new vaccine is being introduced and vaccine safety needs to be assured. It offers a structured process for evaluating whether significant knowledge gaps exist, whether passive safety surveillance is adequate, and if not, how active vaccine safety surveillance studies can be designed and implemented.

With novel vaccines on the horizon, many of which are likely to be introduced early and/or exclusively into countries with limited pharmacovigilance experience and infrastructure, there is an urgent need for guidance on generating reliable post-licensure safety assessment data.

Measuring pharmaceutical systems strengthening
A recently published review article highlights the importance of policy, laws and governance as the central hub for an efficient and equitable system, with medicines regulatory functions to ensure the safety, efficacy and quality of pharmaceutical products and related services. The article proposes definitions for a pharmaceutical system and proposes seven components to measure pharmaceutical systems strengthening: (1) pharmaceutical products and related services; (2) policy, laws and governance; (3) regulatory systems; (4) innovation, research and development, manufacturing, and trade; (5) financing; (6) human resources; and (7) information.


Spotlight on flawed bioequivalence trials in India
Hyderabad – An online Reuters article has highlighted the dangers of “India’s flawed generic drugs trials business”. More than a dozen volunteers interviewed by Reuters across four Indian cities said that they participated in as many studies as possible to earn money, waiting much less than the internationally recommended 90 days between trials. This waiting period is needed to protect the health of study participants and ensure the validity of the trial data.

In recent years, there has been increasing concern about the integrity of data generated at Indian contract research organizations. In 2015, the EMA suspended more than 700 generic products because of issues with the bioequivalence data submitted in support of their marketing authorization applications.


Medicines use
Over- and underuse of health care interventions
A series of articles published in The Lancet shows that underuse of proven medical care and overuse of unproven services exist side by side in all economic settings, causing suffering to millions of people as well as wasteful misallocation of resources for society.

In the final paper of the series the authors argue that overuse and underuse are symptoms of a health-care system that does not reflect the ethics of medicine and that, with universal health coverage adopted as a target under the UN Sustainable Development Goals, focusing the world’s attention on achieving the right care is both an urgent task and an enormous opportunity.

The authors conclude that the deepest drivers of poor care arise out of fundamental inequalities of information, wealth and power. The path to the right care will therefore require more data on medicines use, a deeper understanding of care delivery as a science, political consensus for redirecting investments towards new, more balanced delivery models, and leadership from clinicians to create an activated, informed and mobilized citizenry.

A comment to the series points out that WHO and other bodies have courageously led moves to increase patient safety and to reduce inappropriate use of antimicrobial agents, and that they should also engage in promoting strategies to reduce the overuse of ineffective care.

► The Lancet Right Care series.
http://www.thelancet.com/series/right-care
**Disease updates**

**Malaria: global targets jeopardized**

Geneva – WHO has released its *World Malaria Report 2016*. According to the report, there were 212 million new cases of malaria and 429,000 deaths worldwide in 2015. Ten countries and territories reported fewer than 150 indigenous cases of malaria, and a further nine countries reported between 150 and 1000 cases. Kyrgyzstan and Sri Lanka were recently certified by WHO to have eliminated malaria, having achieved at least three consecutive years of zero indigenous cases.

Sub-Saharan Africa accounted for to 90% of malaria cases and 92% of malaria deaths in 2015. Children under five years accounted for an estimated 70% of all malaria deaths globally. The report shows that children and pregnant women in sub-Saharan Africa have greater access to effective malaria control, with a steep increase in diagnostic testing for children and preventive treatment for pregnant women reported over the last five years.

Funding shortfalls and fragile health systems are undermining overall progress, jeopardizing the attainment of the targets defined in the Global Technical Strategy for Malaria 2016-2030. Funding has flat-lined since 2010, totalling US$ 2.9 billion in 2015 or 45% of the 2020 funding milestone.

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**Ebola: vaccine shown to be effective**

Geneva – The results of a clinical trial conducted in Guinea on the rVSV-ZEBOV Ebola vaccine have been published in *The Lancet*. The trial was led by WHO, together with Guinea’s Ministry of Health, Médecins sans Frontières and the Norwegian Institute of Public Health, in a unique collaboration with international partners. Its findings confirm that the vaccine is safe and provides high protection against the disease. Additional studies are ongoing to provide more data on the safety of the vaccine in children and other vulnerable populations such as people with HIV.

In January, GAVI, the Vaccine Alliance provided US$5 million to Merck towards the future procurement of the vaccine once it is approved, prequalified and recommended by WHO. As part of this agreement, Merck committed to ensure that 300,000 doses of the vaccine are available for emergency use in the interim, and to submit the vaccine for licensure by the end of 2017. Merck has also submitted the vaccine to WHO’s Emergency Use and Assessment Listing procedure (EUAl).

The rapid development of rVSV-ZEBOV contributed to the development of WHO’s R&D Blueprint, a global strategy to fast-track the development of effective tests, vaccines and medicines during epidemics.


**Polio: public health emergency continues**

Geneva – The Emergency Committee under the International Health Regulations (2005) (IHR) unanimously agreed that the international spread of poliovirus remains a Public Health Emergency of International Concern (PHEIC). At the recommendation of the Committee, the WHO Director-General extended the Temporary Recommendations for a further three months. The recommendations aim mainly at raising political awareness and official recognition of the emergency, ensuring strategic vaccination of people
at risk with documentation of people's vaccination status, and maintaining surveillance and detection measures. The importance of regional cooperation and cross-border coordination was emphasized. The Committee urged all countries to avoid complacency which could easily lead to a polio resurgence.


Cancer: WHO calls for early diagnosis

Geneva – Ahead of World Cancer Day 2017, WHO has released new guidelines aiming to improve early diagnosis of cancer and ensure prompt treatment, especially for breast, cervical, and colorectal cancers. Treatment of cancer at an early stage is generally more effective, less complex and less expensive. Low- and middle-income countries tend to have the greatest challenges in providing effective diagnostic and treatment services. WHO encourages these countries to prioritize basic, high-impact and low-cost services and to reduce the need for out-of-pocket payment for these services to increase their uptake. (1)

According to new WHO figures cancer caused 8.8 million deaths in 2015, making it the second leading cause of death globally. Two thirds of cancer deaths occur in low- and middle-income countries. In 2010, the global economic cost of cancer through healthcare expenditure and loss of productivity was estimated at US$ 1.16 trillion. Approximately 14 million new cases occurred in 2012, and the incidence is expected to rise by about 70% over the next two decades. (2)

► (1) WHO News release, 3 February 2017.

affordable. In addition, the new financing model is designed to ensure equity among manufacturers, with provisions included to enable small manufacturers that meet quality standards to enter the market on an equal footing with large companies.”

WHO. Report by the Director-General to the Executive Board at its 140th session. 23 January 2017.

New medicines invited for prequalification
Geneva – The WHO Prequalification Team–Medicines (PQT) has published new invitations for expression of interest (EOI) for product evaluation. In the area of reproductive health the newly eligible products include benzathine benzylpenicillin and procaine benzylpenicillin injectables. Products added for neglected tropical diseases include miltefosine capsules, injectable sodium stibogluconate, injectable paromomycin as well as azithromycin tablets. The respective active pharmaceutical ingredients (API) have been added to the EOI for APIs. Details are found in the EOIs listed below, available on the WHO prequalification website.

WHO PQT. 8th EOI for Reproductive Health. 22 December 2016.
WHO PQT. 5th EOI for Neglected Tropical Diseases. 9 February 2017.
WHO PQT. 12th EOI for APIs. 27 December 2016.
WHO PQT. 13th EOI for APIs. 15 February 2017.

New WHO prequalification website
Geneva – The WHO Prequalification Team–Medicines has released its new website. The site has been reshaped to streamline the content, improve navigation and enhance data retrieval and search features. Greater use is also made of visual elements.

The new website is the result of close collaboration with manufacturers, regulators, procurers, quality control laboratories and health workers and other stakeholders. Feedback was sought before the launch, and is still invited as a basis for further improvements if warranted. The websites of the prequalification workstreams for vaccines and diagnostics will also be reviewed and updated.

WHO. Essential Medicines and Health Products: Prequalification of medicines [website]. https://extranet.who.int/prequal

Upcoming events

2017 joint UNICEF–UNFPA–WHO manufacturers meeting
The 2017 joint UNICEF–UNFPA–WHO manufacturers meeting will take place in Copenhagen, Denmark, on 18–21 September 2017. Due to a clash of meeting events it was not possible to hold a joint UNICEF–UNFPA–WHO meeting in 2016.

The joint manufacturers meeting provides information for suppliers of medical products for use by UN agencies and other international organizations.

WHO Prequalification website. Events.