

Block 2: Hot Topic TB Therapie

Nationale Arbeitsgruppe zu TB- Medikamenten und Lösungsansätze

Referat 631 - Infektionskrankheiten



Bundesministerium
für Gesundheit

Agenda

1. Ausgangslage
2. Entstehung der nationalen Arbeitsgruppe
3. Zusammensetzung der nationalen Arbeitsgruppe
4. Lösungsansätze



1. Ausgangslage

Ausgangslage – WHO EURO Region

Zu kleine Märkte –
weniger
Zulassungen

Fragmentiert,
klein,
Unattraktiv



Ziel Eliminierung
Tb in Gefahr

Schlechte
Verfügbarkeit von
einigen TB-
Medikamenten in
EU-/EWR-Region

Längere
Therapiedauer

Schlechtere
Compliance und
Therapieadhärenz

WHO-EURO-Aktivitäten in 2024/24

1. Umfrage zur TB-Medikamentenverfügbarkeit der WHO EURO in 10/2023

	Bedaquiline	Levofloxacin	Moxifloxacin	Linezolid	Clofazimine	Cycloserine	Pretomanid	Delamanid
Belgium	Available	Available	Available	Available	Available	Available	Available	Limited availability
Croatia	Available	Available	Available	Available	Available	Available	Available	Limited availability
Czechia	Available	Available	Available	Available	Available	Available	Available	Limited availability
Estonia	Available	Available	Available	Available	Available	Available	Available	Limited availability
Finland	Available	Available	Available	Available	Available	Available	Available	Limited availability
Germany	Available	Available	Available	Available	Available	Available	Available	Limited availability
Ireland	Available	Available	Available	Available	Available	Available	Available	Limited availability
Latvia	Available	Available	Available	Available	Available	Available	Available	Limited availability
Lithuania	Available	Available	Available	Available	Available	Available	Available	Limited availability
Luxembourg	Available	Available	Available	Available	Available	Available	Available	Limited availability
Malta	Available	Available	Available	Available	Available	Available	Available	Limited availability
The Netherlands	Available	Available	Available	Available	Available	Available	Available	Limited availability
Norway	Available	Available	Available	Available	Available	Available	Available	Limited availability
Portugal	Available	Available	Available	Available	Available	Available	Available	Limited availability
Romania	Available	Available	Available	Available	Available	Available	Available	Limited availability
Slovakia	Available	Available	Available	Available	NA	Available	Available	Limited availability
Sweden	Available	Available	Available	Available	Available	Available	Available	Limited availability
United Kingdom	Available	Available	Available	Available	Available	Available	Available	Limited availability

■ Available ■ Not available
■ Limited availability ■ NA No answer

RAPID COMMUNICATION

Availability of drugs for the treatment of multidrug-resistant/rifampicin-resistant tuberculosis in the World Health Organization European Region, October 2023

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The 6PaLM regimen (bedaquiline, pretomanid, linezolid and moxifloxacin) recently recommended by the World Health Organization offers short, safe, and effective treatment for multidrug-resistant/rifampicin-resistant tuberculosis (TB). In a survey with national TB focal points in six central and western European countries to explore barriers for the implementation of 6PaLM, only three reported full availability of pretomanid, a necessary component of this regimen. Implementation barriers included financing and procurement. Solutions on national and supra-national level are needed to guarantee universal access.

Comprising 53 countries, the World Health Organization (WHO) European Region includes countries with the highest multidrug-resistant/rifampicin-resistant (MDR/RR) tuberculosis (TB) rates observed globally, and countries with some of the world's lowest TB rates [1]. In 2022, population displacement in Europe triggered by the war against Ukraine has led to an increase in MDR/RR TB notifications in many countries in western and central Europe and brought into focus challenges in treatment continuity and regional inequalities in access to TB medicines [2,3]. The uptake of effective regimens recommended by the latest WHO MDR/RR guidelines is affected by drug availability challenges. With a growing number of MDR/RR TB patients in Europe, the WHO Regional Office for Europe conducted a survey to explore common and country-specific challenges and calls for efforts to improve the situation.

The new drug-resistant tuberculosis

In 2020, the WHO began recommending fully oral treatment regimens for the treatment of drug-resistant (DR) TB. These render therapy more safe, effective and person-centred, with shorter treatment durations [4,5]. In its latest guidelines, the WHO recommends a short-

6-month 6PaLM regimen comprised of bedaquiline (Bdq), pretomanid (Pa), linezolid (L) and moxifloxacin (Mx) as the preferred treatment option for patients with MDR/RR TB, over the use of 9-month and longer regimens [4]. This change has the potential to improve treatment success rates for MDR/RR TB, particularly in the WHO European Region, where treatment is only successful in 55% of cases, below all other WHO Regions [6]. The new regimen could offer the additional benefit of reduced health system costs and decreased stigma associated with lengthy DR TB treatment. Moreover, many individuals affected by DR TB belong to highly mobile and vulnerable populations, for whom shorter regimens offer substantial benefits.

Despite these benefits reports have been emerging that countries with relatively low TB burden are struggling to secure the necessary components of the WHO-recommended DR-TB regimens [7]. To advance efforts towards TB elimination, shorter regimens and tolerable drugs in convenient formulations are needed, especially in cases of MDR/RR TB. The public health risk posed by untreated, emerging, or interruptedly treated individuals with DR TB is raising concerns among physicians, public health experts and policymakers [4,8]. Notably, attracting attention in the political declaration from the United Nations High-level meeting on TB September 2023 which specifically called for "universal availability" of the medicines central to these regimens [4].

Tuberculosis treatment supplies

In the WHO European Region, two main supply chains meet national health systems' demand for TB treatments. In western and central Europe, a plethora of small generic companies supply the older single-component medicines. Newer, patent-protected medicines are centrally registered and available through international producers. With a low number of patients,

Kurze Zusammenfassung

TB-Medikamentenverfügbarkeit in Deutschland

- Rifapentin zur präventiven TB-Medikamententherapie ist in Deutschland nicht verfügbar, da keine Zulassung besteht.
- keine ausreichend verfügbaren kinderfreundlichen Arzneimittel zur Behandlung pädiatrischer Fälle
- Pretomanid im Rahmen des BPaL(M)-Schemas:
 - zugelassen, aber keine Markteinführung in Deutschland
 - Lange Lieferzeiten (bis zu vier Wochen)
 - Hohe Kosten, die im stationären Bereich nicht vollständig durch die DRG-Fallpauschale gedeckt werden
 - Einsatz nur bei MDR-TB gedeckt, wenn andere Medikamente nicht einsetzbar sind oder zusätzliche Resistenzen vorliegen

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EDITORIAL

Urgent request for pretomanid label expansion to align with WHO guidelines and improve treatment accessibility and efficacy

SUMMARY

Pretomanid is a key oral TB drug included in the WHO list of essential medications. The current EMA approved label for pretomanid restricts its use to the regimen comprising bedaquiline, pretomanid and linezolid (BPaL) and only for extensive drug-resistant TB or multidrug-resistant TB. These antibiotics used for the later form of TB do not work or cause unacceptable side effects. This constraint now implies that the older, prolonged and poorly tolerated regimen remains the recommended treatment for most cases of drug-resistant TB. The authors, representing many respiratory groups and societies, call for the label expansion of pretomanid to align with global guidelines, allowing for the later form of TB.

KEY WORDS: tuberculosis, drug resistance, MDR-TB, BPaL, WHO, TB, European Medicines Agency

We express our strong support for the proposed label expansion of pretomanid. A key oral TB drug, which is included on the WHO model list of essential medicines¹, this antibiotic aims to align clinical practice with the latest WHO guidelines² and updated guidelines by the American Thoracic Society, U.S. Centers for Disease Control and Prevention, European Respiratory Society, and Infectious Diseases Society of America³. The current EMA approved label for pretomanid (Oprevela)⁴ restricts its use to the regimen comprising bedaquiline, pretomanid and linezolid (BPaL) and only for extensively drug-resistant TB (XDR-EB) or for multidrug-resistant TB (MDR-EB) "unless antibiotics used for the later form of tuberculosis do not work or cause unacceptable side effects". In this context, it is important to highlight that the definition of MDR-TB was revised by WHO in 2022, after pretomanid (Oprevela)⁴ authorization, and now describes a distinct patient population, those with multidrug-resistant tuberculosis resistance against rifampicin with or without isoniazid, levofloxacin or moxifloxacin, and bedaquiline and/or delamanid.

This restricted use implies that the older, prolonged and poorly tolerated individualized regimens remain the recommended treatment for most persons affected by MDR-EB or rifampicin-resistant TB (RR-EB). However, since 2022 and based on evidence from the Nix, ZeNix and TB.PRACTISE trials, WHO has recommended BPaL with moxifloxacin (BPaLM) as the standard of care for MDR-EB-EB. Furthermore, WHO advises omitting moxifloxacin in cases of fluoropyrimidine resistance.^{5,6} Following the WHO 2022 guidelines recommending pretomanid use in BPaLM for all patients with rifampicin-resistant TB, WHO issued a Call to Action⁷ emphasizing that rapid implementation of these regimens could significantly improve treatment outcomes and patient quality of life. WHO urges governments, healthcare providers and stakeholders to prioritize the incorporation of BPaLMs into national TB programs.

The BPaLM regimen has been implemented in individual countries through pilot programs, clinical trials, operational research and programme settings. Notably, the aPrEL trial in India⁸, a prospective cohort study in Belarus and Uzbekistan,⁹ and a pilot implementation study in Pakistan¹⁰ demonstrated high success rates and a safety profile consistent with the results of the earlier Nix16, ZeNix and TB.PRACTISE trials. Furthermore, the BPaLM regimen has been shown to be cost-effective across four countries.¹¹ Shortening the duration of treatment is a priority for MDR-EB-TB patients, along with reducing pill burden and toxicity of care regimens.¹² However, recent data from TBnet and WHO TBEO surveys assessing the availability of drugs and resistance (using in Europe) highlight significant disparities in access to the BPaLM regimen. Data indicate that of the covered countries, only 23/44 (52%) and 5/14 (35%), respectively, have full access to all necessary drugs, with pretomanid being notably the least accessible.¹³

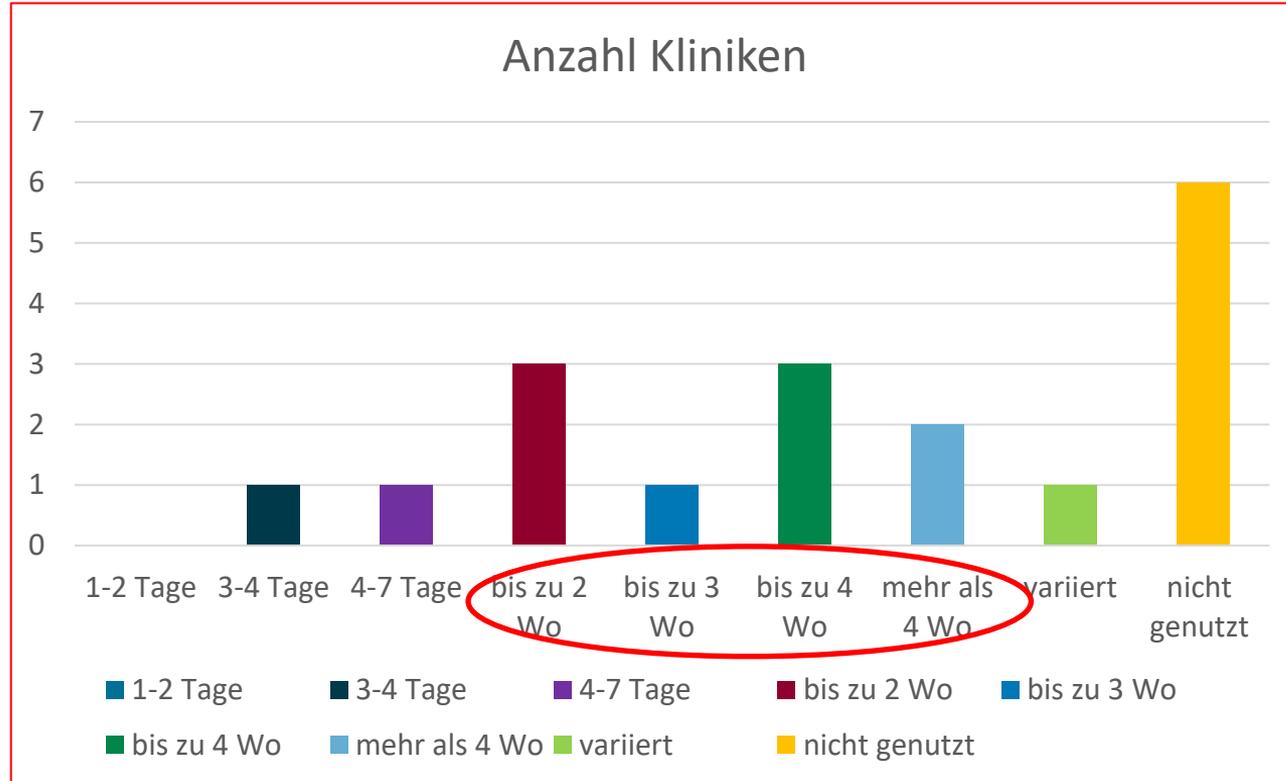
In EITPA countries, members of MDR-EB-TB care are increasing. Therefore, we urge a rapid review of the pretomanid (Oprevela) label by the EMA. A recent review supports the use of pretomanid-based regimens in patients with drug-resistant TB if found that pretomanid-based regimens are efficacious with tolerable safety profile.¹⁴

An updated label that includes broader indications for pretomanid will not only align with the best clinical practices and WHO recommendations but also address the urgent need for equitable access to treatment across Europe.

We strongly advocate for a label update that reflects the WHO's current guidelines on use of pretomanid to improve treatment accessibility and efficacy.

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Umfrage zu Lieferzeiten bei Pretomanid Update 2025



Kosten für die Behandlung von RR/ MDR/XDR-TB

Individualisierte
Therapie
18 Monate

~40.000
€

BPaL(M)
6 Monate
inkl. Pretomanid

~50.000€

*Angaben Klinikapotheken

WHO EURO Aktivitäten in 2024

1. Umfrage zur TB-Medikamentenverfügbarkeit der WHO EURO in 10/2023
2. 1. und 2. Quartal 2024: Planungen zum 1. WHO EURO Treffen in Berlin im WHO Hub
 - BMG als Co-Gastgeber
3. 06/2024: WHO EURO Treffen in Berlin

WHO EURO Treffen in Berlin 06/2024



Quelle: WHO

- 22 EU-Staaten + UK, mehr als 150 Teilnehmende
- Gastgeber: WHO EURO
- **Co-Gastgeber: BMG**, Teilnahme durch Frau AL_in Dr. Teichert, mit Unterstützung: RKI, BfArM, DZK
- Organisationen: Ministerien, EU-Institutionen (ECDC, HERA), zivile Organisationen (MSF etc.)

Ergebnisse WHO EURO Tagung

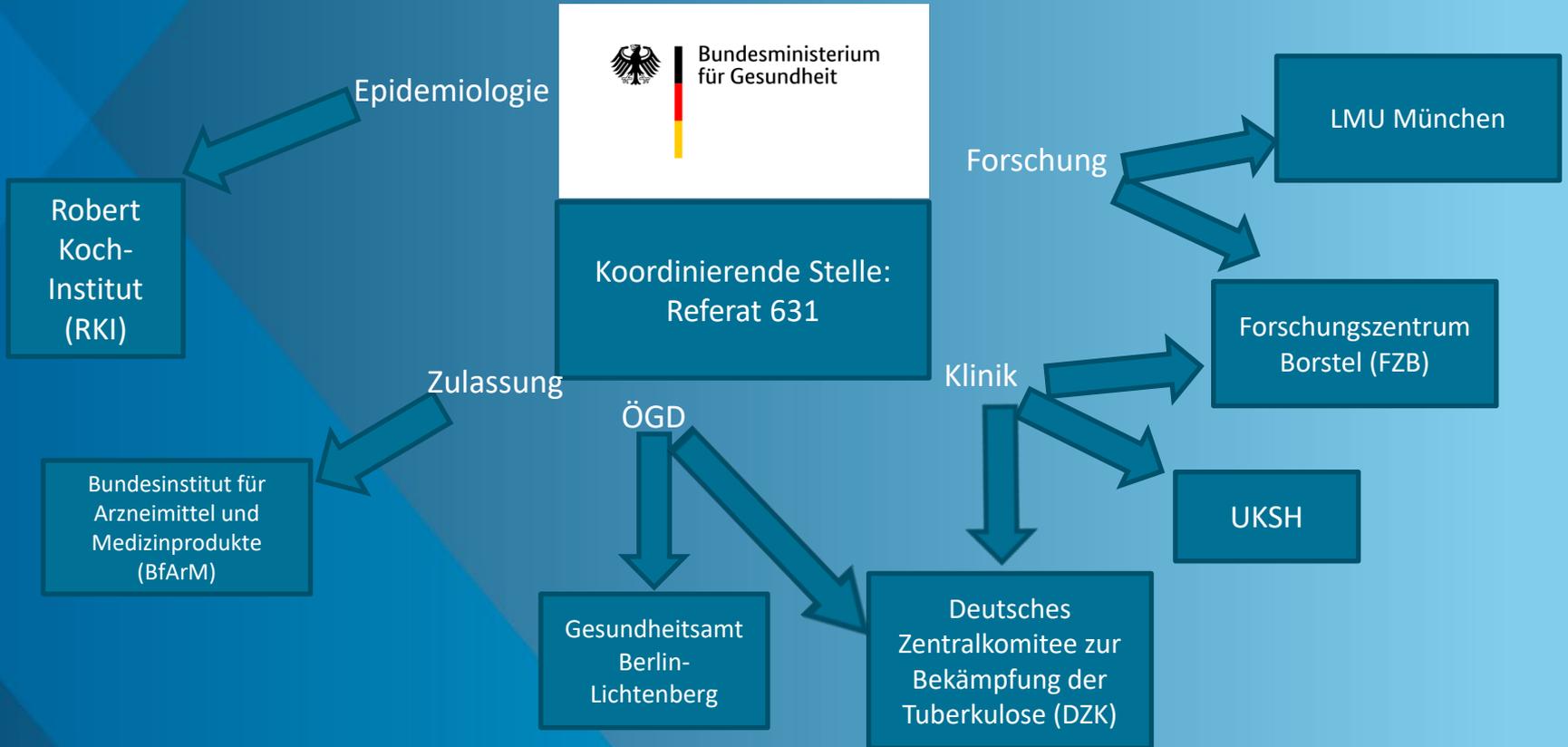
1. Verfügbarkeits- und Zugangsprobleme bestehen überall in den EU-/EWR-Ländern.
2. Es braucht sowohl europäische als auch nationale Lösungsansätze.
3. Gründung zweier Arbeitsgruppen auf WHO EURO Ebene:
 1. AG zu alten TB-Medikamenten
 2. AG zu neuen TB-Medikamenten
4. Entwicklung einer EU-/EWR-weiten Umfrage zur konkreten Identifikation der Verfügbarkeitsproblematik
5. Weitere WHO-Tagung in 01/2025

Nationale Arbeitsgruppe

Entstehung & Ziele der nationalen AG



Zusammensetzung



*Lösungsansätze
der Arbeitsgruppe für
Deutschland*

Hauptprobleme in Deutschland

1. Medikamente sind nicht auf den deutschen Markt eingeführt (verbunden mit längeren Lieferzeiten).
2. Medikamente sind nicht ausreichend verfügbar (Rifapentin, pädiatrische Medikamente)
3. DRG-Fallpauschalen zu niedrig

Ansatzpunkte der nationalen AG

1. Medikamente sind nicht auf den deutschen Markt eingeführt (z.B. Pretomanid).
2. Medikamente sind nicht ausreichend verfügbar
3. DRG-Fallpauschalen zu niedrig



- Identifikation der Lieferzeiten von z.B. Pretomanid bei Kliniken durch Abfragen
- Aufnahme von Rifampicin-resistenten Mykobakterien auf die Erregerliste von RKI und BfArM
 - Einstufung der Antibiotika als Reserveantibiotika
 - Erleichtertes AMNOG-Verfahren
- Einsatz für Zulassungserweiterung bei Pretomanid

Ansatzpunkte der nationalen AG

1. Medikamente sind nicht auf den deutschen Markt eingeführt (z.B. Pretomanid).
2. **Medikamente sind nicht ausreichend verfügbar.**
3. DRG-Fallpauschalen zu niedrig



- Bestellweg über die Global Drug Facility (GDF)
 - Kliniken und Apotheken haben die Möglichkeit, international zu bestellen nach §73 Abs.3 AMG
- Bestellweg über Zwischenhändler bei der GDF möglich?

Ansatzpunkte der nationalen AG

1. Medikamente sind nicht auf den deutschen Markt eingeführt (z.B. Pretomanid).
2. Medikamente sind nicht ausreichend verfügbar.
3. DRG-Fallpauschalen zu niedrig



- DRG-Änderungsantrag beim Institut für das Entgeltsystem im Krankenhaus (InEK)
 - Beantragung eines Zusatzentgeltes
 - Rückmeldung ausstehend
- Neue Untersuchungs- und Behandlungsmethoden (NUB): Überarbeitung der NUB-Anträge für Pretomanid und Bedaquilin
 - **NUB-Status 1 nicht bewilligt, kein krankenhausespezifisches Entgelt**

Zusammenarbeit mit der WHO EURO

Teilnahme an zwei WHO-Arbeitsgruppen

- AGs zu alten und neuen Medikamenten (Vorsitz in AG neue TB-Medikamente)

Beteiligung an WHO EURO Umfrage

- Umfassendes Bild durch interdisziplinäre Zusammenarbeit

Aktive Beteiligung bei der 2. WHO Tagung

- Vortrag zu den vorläufigen Ergebnissen der Umfrage

2. WHO-EURO Tagung in Kopenhagen



Quelle: WHO

- 28/29. Januar 2025 in Kopenhagen
- Deutschland als Vorreiter durch nationale Arbeitsgruppe gesehen
- Bildung einer WHO EURO Arbeitsgruppe zu Procurement
- Entwicklung von pädiatrischen Kinderarzneimitteln durch pharmazeutisches Unternehmen
- Fortführung /Bildung der nationalen Arbeitsgruppen

Fazit

- Es braucht sowohl nationale als auch europäische Lösungsansätze.
- In der interdisziplinären nationalen Arbeitsgruppe wird unterschiedliche Expertise gebündelt und so können effizient Lösungsansätze erarbeitet werden.
- Zusammenarbeit mit der WHO als Impulsgeber von hoher Bedeutung

Vielen Dank für Ihre Aufmerksamkeit!



Bundesministerium
für Gesundheit