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Faropenem

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Pharma today

Overview: Faropenem is an oral beta-lactam antibiotic of the "penems" class, approved in India by CDSCO in 2005 (tablet) and 2021 (oral solution). It should be used as a reserve antibiotic and not used routinely without laboratory evidence of ESBL-infections.

The drug was approved in 2005, but the drug usage started from the year 2010.

Spectrum of activity

- Effective against: Gram-positive cocci & Gram-negative bacteria such as ESBL-producing Enterobacterales.
- Not effective against: MRSA, Vancomycin-resistant Enterococcus faecium, Pseudomonas aeruginosa, Stenotrophomonas maltophilia.

Mechanism of Action

Like other beta-lactams, it inhibits the bacterial cell wall synthesis, leading to cell death.

Indications in India

Used to treat respiratory, urinary, skin/ soft tissue and gynecological infections.

Resistance concerns

There are also reports of Faropenem resistance causing cross resistance to other carbapenems. This raises serious concerns since the other carbapenems such as Meropenem, Imipenem are usually reserved as life-saving antibiotics, used for critically-ill patients with MDR organisms. Widespread use of cost-effective oral Faropenem in OPD settings may promote rising AMR and compromise therapeutic outcomes.

Testing Limitations

Faropenem is not approved in the US or Europe. Due to the lack of CLSI or EUCAST guidelines, routine susceptibility testing is not performed in Indian microbiology labs.

Conclusion

Faropenem is a valuable oral antibiotic in India, especially for ESBL-related infections. However, its use must be guided by antibiotic stewardship to prevent resistance.

Recommendation

In hospital settings, prescribing Faropenem empirically without culture sensitivity can lead to inappropriate therapy, especially in organisms like pseudomonas aeruginosa, which are inherently resistant to Faropenem. Therefore, culture and sensitivity testing be prioritized before initiating antibiotic therapy when possible, especially in high-risk or recurrent infections. And also, not recommended to use against Gram positive infections where more cheaper and narrow spectrum alternative antibiotics are available.