

Category : **Hematology: Other**

**A160 - Effects of iron supplementation on the efficacy of cefiderocol in patients with carbapenem-resistant infections in the pathogen-focused credible-cr study**

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**Introduction:**

We assessed whether the efficacy of cefiderocol (CFDC) was reduced when patients with serious carbapenem-resistant (CR) infections received iron supplementation. CFDC is the first siderophore, iron-chelator cephalosporin developed for the treatment of adult patients with serious CR Gram-negative infections with limited treatment options. Critically ill patients with anaemia eventually receive iron supplementation or blood transfusions.

**Methods:**

CREDIBLE-CR, an open-label randomised 2:1, Phase 3 study, investigated the efficacy of CFDC 2 g (or renal function-adjusted dose), q8h, or best available therapy (BAT;  $\leq 3$  non-siderophore antibiotics) for 7–14 days in hospitalised critically ill patients with serious CR infections [1]. Clinical cure and microbiological eradication were evaluated at end of treatment (EOT), test of cure (TOC) and follow-up (FU). Day 28 all-cause mortality (ACM) was compared for patients with or without iron supplementation given at any time up to EOT.

**Results:**

Of 118 patients with confirmed CR pathogens at baseline, 42.5% (34/80) in the CFDC arm and 36.8% (14/38) in the BAT arm received blood transfusions and/or iron preparations up to EOT. Clinical cure rates were similar between CFDC and BAT at TOC with (41.2% [14/34] and 35.7% [5/14], respectively) and without (60.9% [28/46] and 58.3% [14/24], respectively) iron supplementation or transfusion; microbiological eradication showed a similar pattern (Figure 1). In the safety population, Day 28 ACM with CFDC was 23.8% (10/42) for patients with and 25.4% (15/59) for those without iron supplementation and/or transfusion. In the BAT arm, Day 28 ACM was 27.8% (5/18) and 12.9% (4/31), respectively.

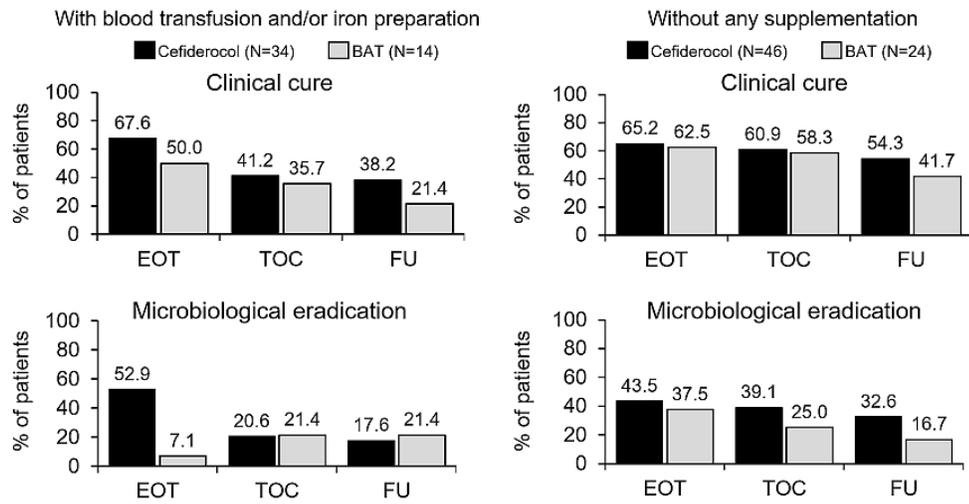
**Conclusion:**

CFDC was as efficacious as BAT in the treatment of patients receiving blood transfusion and/or iron preparation. This suggests that iron supplementation and/or transfusion does not interfere with the antibacterial activity of CFDC.

**References:**

1. Bassetti M et al. Lancet Infect Dis 21(2):226–240, 2021.

**Image :**



BAT, best available therapy; EOT, end of treatment; FU, follow-up; TOC, test of cure.

*Clinical cure and microbiological eradication rates in patients with or without iron supplementation in the CREDIBLE-CR study.*