Choice of antibiotic may influence HRQoL in patients with ABSSSI who inject drugs

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Background

Infectious diseases such as ABSSSI are a common cause of morbidity and mortality in PWID[2]

Omadacycline is a once-daily intravenous or oral aminomethylcycline antibiotic approved in the United States for treating ABSSSI and community-acquired bacterial pneumonia in adults[3]

Differential effects of antibiotics on self-reported health-related quality of life (HRQoL) in PWID could potentially influence patient adherence and treatment outcomes

Methods

Participants in OASIS-2 completed the 36-item Short Form Health Survey version 2 (SF-36v2®; Optum, Inc., Eden Prairie, MN, USA) at screening and post-treatment evaluation (PTE; 7–14 days after last dose)

Responses to each item within the eight domains (physical functioning, bodily pain, role physical, general health, vitality, role emotional, mental health, and social functioning) were combined, to generate a score from 0 to 100 (100 indicates best health)

Results were analysed in accordance with established norm-based standards for the survey, where each scale is scored to have the same mean (50 points) and standard deviation (10 points)

Analysis was performed for the intent-to-treat population (all randomized participants)

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Self-reported health status in ambulatory acute bacterial skin and skin structure infection patients who inject drugs, who received oral therapy with omadacycline or linezolid

Objective

To investigate patient-reported outcomes among persons who inject drugs (PWID) in OASIS-2 (Omadacycline in Acute Skin and skin structure Infections Study 2; NCT02877927), a randomized, double-blind, Phase 3 clinical study comparing oral omadacycline versus oral linezolid for treating adults with acute bacterial skin and skin structure infections (ABSSSI)[1]

Conclusions

PWID with ABSSSI who were treated with omadacycline had greater improvement in patient-reported health status than those treated with linezolid; the differences were significant for role physical and role emotional domains

Greatest improvements for omadacycline were in performance of self-maintenance and social functions impacted by physical and mental health status

Further research is warranted to determine the short- and long-term impact of ABSSSI treatments on physical and social role functioning among PWID

Scan for the abstract (accepted to ECCMID 2020), a copy of this poster, and additional data

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Results

Injection drug use was the most common comorbid condition among OASIS-2 participants: 494 (69%) patients had ABSSSI that was a result of intravenous drug use[1]

Improvements in role physical and role emotional SF-36v2 subscales were significantly higher for omadacycline-treated PWID than for linezolid-treated PWID (95% confidence interval [CI]: 0.6, 9.5 and 1.1, 10.6, respectively; **Figures 1 and 2**)

As these subscales focus on work productivity and other social roles, findings indicate that omadacycline-treated PWID in OASIS-2 reported being better able to sustain productivity and work performance, and other important role activities, compared with linezolid-treated PWID

Figure 1: Change in SF-36v2 scores from baseline to PTE in PWID who received omadacycline or linezolid (OASIS-2)

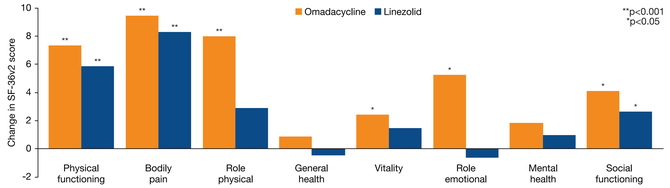
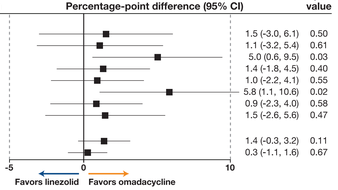


Figure 2: Comparison of change in SF-36v2 scores from baseline to PTE in PWID who received omadacycline or linezolid (OASIS-2)

HRQoL outcomes	Omadacycline (LS mean change from baseline score (95% CI))	Linezolid (LS mean change from baseline score (95% CI))	Percentage-point difference (95% CI)	P-value
SF-36v2 scale parameters				
Physical functioning	7.40 (4.23, 10.57)	5.85 (2.61, 9.10)	1.5 (-3.0, 6.1)	0.50
Bodily pain	9.48 (6.49, 12.47)	8.36 (5.30, 11.42)	1.1 (-3.2, 5.4)	0.61
Role physical	7.98 (4.90, 11.06)	2.94 (-0.22, 6.09)	5.0 (0.6, 9.5)	0.03
General health	0.88 (-1.35, 3.11)	-0.47 (-2.74, 1.80)	1.4 (-1.8, 4.5)	0.40
Vitality	2.46 (0.25, 4.67)	1.50 (-0.76, 3.76)	1.0 (-2.2, 4.1)	0.55
Role emotional	5.22 (1.90, 8.53)	-0.63 (-4.02, 2.76)	5.8 (1.1, 10.6)	0.02
Mental health	1.88 (-0.31, 4.07)	1.00 (-1.24, 3.24)	0.9 (-2.3, 4.0)	0.58
Social functioning	4.16 (1.31, 7.01)	2.66 (-0.25, 5.58)	1.5 (-2.6, 5.6)	0.47
Norm-based SF-36v2 summaries				
Mental component summary	0.89 (-0.34, 2.13)	-0.53 (-1.78, 0.72)	1.4 (-0.3, 3.2)	0.11
Physical component summary	2.84 (1.89, 3.78)	2.55 (1.59, 3.50)	0.3 (-1.1, 1.6)	0.67



LS = least squares

References

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2. Mertz D, et al. *BMC Infect Dis*. 2008;8:42. doi:10.1186/1471-2334-8-42.
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