

WHEN YOU SUSPECT CERTAIN THREATENING
GRAM-NEGATIVE PATHOGENS IN HABP/VABP

**TAKE ACTION
WITH AVYCAZ®**

INDICATIONS AND USAGE

Hospital-acquired Bacterial Pneumonia and Ventilator-associated Bacterial Pneumonia (HABP/VABP)

AVYCAZ (ceftazidime and avibactam) is indicated for the treatment of hospital-acquired bacterial pneumonia and ventilator-associated bacterial pneumonia (HABP/VABP) in patients 18 years or older caused by the following susceptible Gram-negative microorganisms: *Klebsiella pneumoniae*, *Enterobacter cloacae*, *Escherichia coli*, *Serratia marcescens*, *Proteus mirabilis*, *Pseudomonas aeruginosa*, and *Haemophilus influenzae*.

Usage

To reduce the development of drug-resistant bacteria and maintain the effectiveness of AVYCAZ and other antibacterial drugs, AVYCAZ should be used to treat only indicated infections that are proven or strongly suspected to be caused by susceptible bacteria.

Please see back page for additional Indications and Usage.

IMPORTANT SAFETY INFORMATION

CONTRAINDICATIONS

AVYCAZ is contraindicated in patients with known serious hypersensitivity to the components of AVYCAZ (ceftazidime and avibactam), avibactam-containing products, or other members of the cephalosporin class.

**Please see additional Important
Safety Information throughout.
Please also see full
Prescribing Information.**


Avycaz®
ceftazidime and avibactam
for injection (2.5 g)



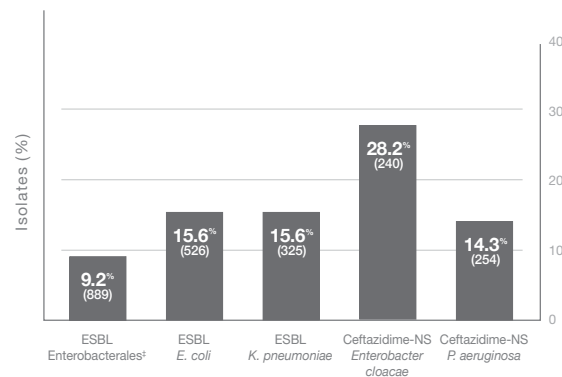
HABP AND VABP ARE AMONG THE MOST COMMON HOSPITAL-ACQUIRED INFECTIONS¹

Prevalence of HABP/VABP

- A 2011 survey determined that HABP/VABP accounted for 22% of all hospital-acquired infections²
- HABP is considered the second most frequent nosocomial infection worldwide³
- In a 2005-2011 study of hospitalized patients, approximately 10% of those who required mechanical ventilation were diagnosed with ventilator-associated pneumonia¹

A 2019 surveillance study showed that P. aeruginosa was the most common Gram-negative pathogen causing pneumonia in hospitalized patients, including VABP, in the US⁴

PREVALENCE OF ESBL[†] PHENOTYPES AND CEFTAZIDIME-NS ISOLATES⁴



[†]A total of 11,282 randomly selected inpatients from 183 hospitals in 10 geographically diverse states were included in the survey. Medical records of 4504 patients who were receiving antimicrobial agents for treatment of active infections or for no documented reason were reviewed for healthcare-associated infections. A total of 504 healthcare-associated infections were detected in 452 of the original randomly selected 11,282 patients. Among those infections, 110 were identified as pneumonia.²

[‡]The ESBL phenotype was defined for *E. coli*, *K. pneumoniae*, and *P. mirabilis* as an MIC value ≥ 2 mg/L for ceftriaxone, ceftazidime, and/or aztreonam.⁴

[§]*E. coli* (N=526), *K. pneumoniae* (N=325), *P. mirabilis* (N=38).⁴

HABP/VABP, hospital-acquired bacterial pneumonia/ventilator-associated bacterial pneumonia. INFORM, International Network For Optimal Resistance Monitoring. MIC, minimum inhibitory concentration. NS, nonsusceptible.

HABP AND VABP CARRY SERIOUS CLINICAL AND ECONOMIC CONSEQUENCES

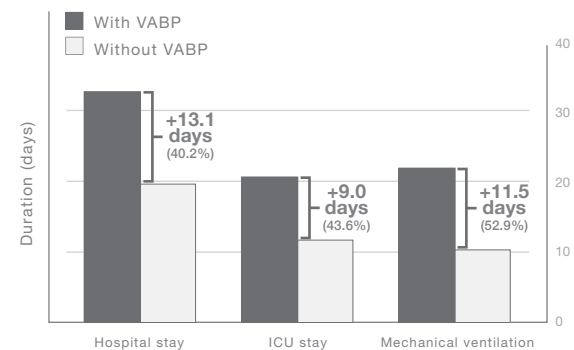
Mortality

- According to one meta-analysis derived from VAP studies, mortality attributable to VABP is 13%^{*5}
- HABP is considered the main cause of mortality for nosocomial infections³

Impact on hospital resource utilization and length of stay

- HABP accounts for approximately half of antibiotics used in the hospital setting³
- VABP prolongs the duration of hospital stay, ICU stay, and mechanical ventilation compared to patients without VABP in the ICU^{1,6,7}

DURATION OF HOSPITAL STAY, ICU STAY, AND MECHANICAL VENTILATION IN PATIENTS WITH VABP VS WITHOUT VABP¹⁷



Kollef MH et al. *Infect Control Hosp Epidemiol.* 2012;33(3):250-256. © 2012 by The Society for Healthcare Epidemiology of America. Reproduced with permission from Cambridge University Press.

Patients who develop HABP in the ICU are particularly susceptible to complications, with approximately 50% of HABP patients developing serious complications^{1,8}

In the ICU, MV patients with VABP accounted for higher mean costs for hospitalization, pharmacy, antibiotics, ventilation, respiratory therapy, and chest X-rays versus MV patients without VABP¹⁷

^{*}Pooled data from 24 studies, yielding 6284 patients, of whom 3384 had been randomly assigned to a preventive measure. Overall, 1061 patients had developed ventilator-associated pneumonia.⁵

[†]Data were drawn from a matched cohort of 2144 adult ICU patients discharged from the hospital in 2008 and 2009.⁷

ICU, intensive care unit. MV, mechanically ventilated.

***Pseudomonas aeruginosa*—Demonstrated *in vitro* activity in the presence of some AmpC β-lactamases and against certain strains lacking OprD⁹**

	AVYCAZ [®]
AmpC	✓
Strains lacking outer membrane porin (OprD)	✓

- AVYCAZ is not active against bacteria that produce metallo-β-lactamases and may not have activity against Gram-negative bacteria that overexpress efflux pumps or have porin mutations⁹

IMPORTANT SAFETY INFORMATION (continued)
WARNINGS AND PRECAUTIONS

- In a Phase 3 cIAI (complicated intra-abdominal infections) trial in adult patients, clinical cure rates were lower in a subgroup of patients with baseline creatinine clearance (CrCl) of 30 to less than or equal to 50 mL/min compared to those with CrCl greater than 50 mL/min. The reduction in clinical cure rates was more marked in patients treated with AVYCAZ plus metronidazole compared to meropenem-treated patients. Within this subgroup, patients treated with AVYCAZ received a 33% lower daily dose than is currently recommended for patients with CrCl of 30 to less than or equal to 50 mL/min. Clinical cure rate in patients with normal renal function/mild renal impairment (CrCl greater than 50 mL/min) was 85% (322/379) with AVYCAZ plus metronidazole vs 86% (321/373) with meropenem, and clinical cure rate in patients with moderate renal impairment (CrCl 30 to less than or equal to 50 mL/min) was 45% (14/31) with AVYCAZ plus metronidazole vs 74% (26/35) with meropenem. The decreased clinical response was not observed for patients with moderate renal impairment at baseline (CrCl 30 to less than or equal to 50 mL/min) in the Phase 3 cUTI trials or the Phase 3 HABP/VABP trial. Monitor CrCl at least daily in adult and pediatric patients with changing renal function and adjust the dosage of AVYCAZ accordingly.

No cross-resistance with other classes of antimicrobials has been identified⁹

- Some isolates resistant to other cephalosporins—including ceftazidime—and to carbapenems may be susceptible to AVYCAZ⁹

Enterobacterales—Demonstrated *in vitro* activity against some β-lactamases and some ESBLs of the following groups⁹:

β-LACTAMASE	AVYCAZ
Serine carbapenemases (KPCs)	✓
ESBLs: TEM, SHV, CTX-M families	✓
Cephalosporinases (AmpCs)	✓
Some oxacillinases (OXA)	✓

- *Klebsiella pneumoniae* carbapenemase—or KPC—is a common subset of carbapenem-resistant Enterobacterales (CRE)^{10,11}
 - KPC is the predominant carbapenemase among Enterobacterales in the US¹¹

ESBLs, extended-spectrum β-lactamases.

IMPORTANT SAFETY INFORMATION (continued)
WARNINGS AND PRECAUTIONS

- Serious and occasionally fatal hypersensitivity (anaphylactic) reactions and serious skin reactions have been reported in patients receiving beta-lactam antibacterial drugs. Before therapy with AVYCAZ is instituted, careful inquiry about previous hypersensitivity reactions to other cephalosporins, penicillins, or carbapenems should be made. Exercise caution if this product is to be given to a penicillin or other beta-lactam-allergic patient because cross sensitivity among beta-lactam antibacterial drugs has been established. Discontinue the drug if an allergic reaction to AVYCAZ occurs.

Please see additional Important Safety Information throughout. Please also see full Prescribing Information.



IN VITRO DATA— INFORM SURVEILLANCE STUDY

In vitro activity does not necessarily correlate with clinical efficacy results. See clinical results, including results by pathogen, in HABP/VABP starting on page 9.

International Network For Optimal Resistance Monitoring (INFORM)⁴

- This 2019 US study surveyed the *in vitro* activity of AVYCAZ[®] and many comparator agents against Gram-negative organisms from 69 medical centers distributed across all 9 US Census regions⁴
- A total of **11,705** organisms were collected and tested, including **9686** Enterobacterales and **1777** *Pseudomonas aeruginosa* strains, among others⁴
- For AVYCAZ, CLSI/FDA susceptibility breakpoints for Enterobacterales (minimum inhibitory concentration [MIC] ≤8/4 mg/L) and *P. aeruginosa* (MIC ≤8/4 mg/L) were used¹²
- For meropenem, CLSI/FDA susceptibility breakpoints for Enterobacterales (MIC ≤1 µg/mL) and *P. aeruginosa* (MIC ≤2 µg/mL) were used¹²

HABP/VABP, hospital-acquired bacterial pneumonia/ventilator-associated bacterial pneumonia. FDA, Food and Drug Administration. CLSI, Clinical and Laboratory Standards Institute.

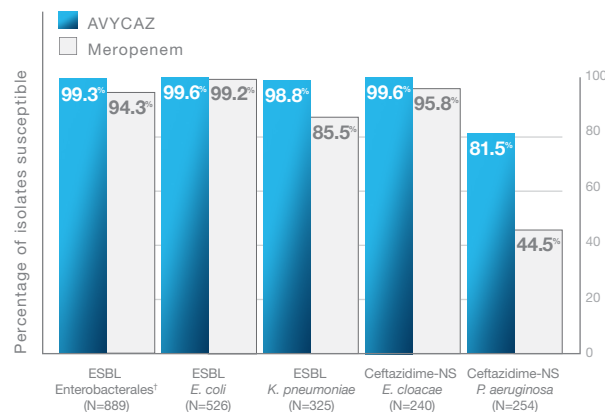
IMPORTANT SAFETY INFORMATION (continued)

WARNINGS AND PRECAUTIONS

- *Clostridium difficile*-associated diarrhea (CDAD) has been reported for nearly all systemic antibacterial drugs, including AVYCAZ, and may range in severity from mild diarrhea to fatal colitis. Careful medical history is necessary because CDAD has been reported to occur more than 2 months after the administration of antibacterial drugs. If CDAD is suspected or confirmed, antibacterials not directed against *C. difficile* should be discontinued, if possible.

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SUSCEPTIBILITY AGAINST ESBL* PHENOTYPES AND CEFTAZIDIME-NS ISOLATES⁴



*The ESBL phenotype was defined for *E. coli*, *K. pneumoniae*, and *P. mirabilis* as an MIC value ≥2 mg/L for ceftriaxone, ceftazidime, and/or aztreonam.⁴

[†]*E. coli* (N=526), *K. pneumoniae* (N=325), *P. mirabilis* (N=38).⁴

NS, nonsusceptible.

IMPORTANT SAFETY INFORMATION (continued)

WARNINGS AND PRECAUTIONS

- Seizures, nonconvulsive status epilepticus (NCSE), encephalopathy, coma, asterixis, neuromuscular excitability, and myoclonia have been reported in patients treated with ceftazidime, particularly in the setting of renal impairment. Adjust dosing based on CrCl.

Avycaz[®]
ceftazidime and avibactam
for injection (2.5 g)

HABP/VABP Phase 3 trial vs meropenem

STUDY DESIGN⁹

TYPE OF TRIAL

Phase 3, multinational, multicenter, double-blind, randomized, noninferiority trial

STUDY POPULATION

870 hospitalized adults with HABP/VABP; the ITT population included all randomized patients who received study drug. The micro-ITT population included all patients with at least one Gram-negative pathogen.

The median age was 66 years and 74.1% were male. The median APACHE II score was 14. The majority of patients were from China (33.1%) and Eastern Europe (25.5%). There were no patients enrolled within the United States. Overall, 43.6% of patients were ventilated at enrollment, including 33.3% with VABP and 10.2% with ventilated HABP. Bacteremia at baseline was present in 4.8% of patients.

COMPARATIVE AGENTS

AVYCAZ[®] 2.5 g (ceftazidime 2 grams and avibactam 0.5 grams) IV every 8 hours

Meropenem 1 gram IV every 8 hours

Study medication dosages were adjusted per renal function.

The protocol allowed for administration of prior and concomitant systemic antibacterial therapy.

TREATMENT DURATION

7 to 14 days

PRIMARY ENDPOINT

The primary efficacy endpoint was 28-day all-cause mortality evaluated in the ITT population (28 to 32 days after randomization).

HABP/VABP, hospital-acquired bacterial pneumonia/ventilator-associated bacterial pneumonia. ITT, intent-to-treat. micro-ITT, microbiological intent-to-treat. APACHE II, Acute Physiology and Chronic Health Evaluation II. IV, intravenous.

IMPORTANT SAFETY INFORMATION (continued)

WARNINGS AND PRECAUTIONS

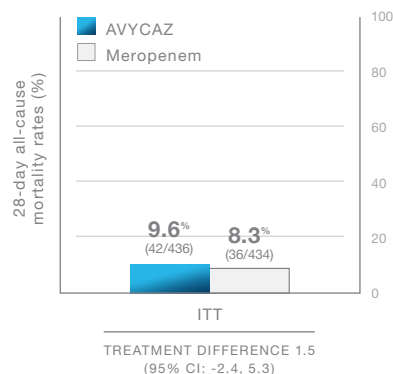
- Prescribing AVYCAZ in the absence of a proven or strongly suspected bacterial infection is unlikely to provide benefit to the patient and increases the risk of the development of drug-resistant bacteria.

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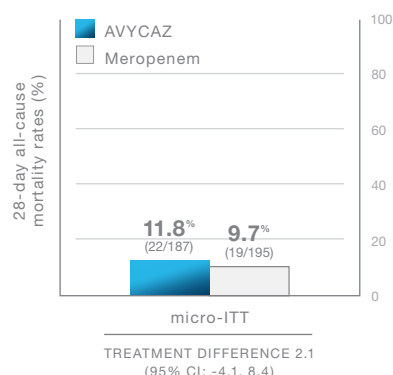
Clinical efficacy in HABP/VABP demonstrated in a Phase 3 trial vs meropenem⁹

- AVYCAZ was noninferior to meropenem with regard to the primary endpoint (28-day all-cause mortality in the ITT population)⁹

28-DAY ALL-CAUSE MORTALITY RATES (ITT)⁹



28-DAY ALL-CAUSE MORTALITY RATES (micro-ITT)⁹



- The control group mortality rates were lower than that observed in other HABP/VABP trials which may impact generalizability of results. However, review of patient characteristics reflecting disease severity indicates the study enrolled a representative HABP/VABP population⁹

CI, confidence interval.

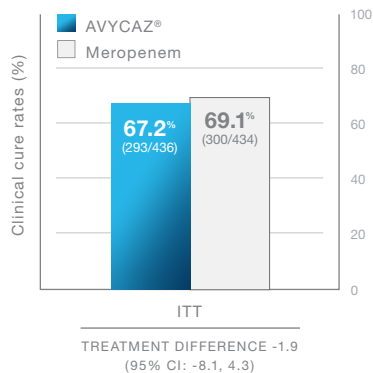
IMPORTANT SAFETY INFORMATION (continued)

ADVERSE REACTIONS

Adult cIAI, cUTI and HABP/VABP Patients:

The most common adverse reactions in adult patients with cIAI ($\geq 5\%$ when used with metronidazole) were diarrhea (8%), nausea (7%), and vomiting (5%). The most common adverse reactions in adult patients with cUTI (3%) were diarrhea and nausea. The most common adverse reactions in adult patients with HABP/VABP ($\geq 5\%$) were diarrhea (15%) and vomiting (6%).

Avycaz
ceftazidime and avibactam
for injection (2.5 g)

CLINICAL CURE RATES AT TOC (ITT)^{*†‡§}

*Clinical cure was defined as resolution or significant improvement in signs and symptoms associated with pneumonia and cessation of antibacterial treatment for HABP/VABP.[§]

†The TOC visit occurred 21 to 25 days from randomization.[§]

‡A quantitative estimate of treatment effect has not been established for the clinical cure endpoint.[§]

Clinical efficacy in patients who received potentially effective prior or concomitant antibacterial therapy[§]

The administration of prior or concomitant Gram-negative antibacterial therapy can confound the assessment of trial results. However, a subgroup analysis of 28-day all-cause mortality in subjects who received 24 hours or less of potentially effective antibacterial therapy prior to randomization and 72 hours or less of concomitant potentially effective antibacterial therapy following randomization produced results similar to the overall ITT population (AVYCAZ mortality 10.0% [20/200], meropenem 6.2% [12/195] [difference 3.8%; 95% CI: -1.6% to 9.5%]). In the subset of patients who received more than 24 hours of potentially effective antibacterial therapy prior to randomization or more than 72 hours of concomitant potentially effective antibacterial therapy following randomization, results were similar to the overall ITT population (AVYCAZ 9.7% [25/258], meropenem 10.5% [28/266] [difference -0.08%; 95% CI: -6.1% to 4.4%]).[§]

HABP/VABP, hospital-acquired bacterial pneumonia/ventilator-associated bacterial pneumonia. TOC, test of cure. ITT, intent-to-treat. CI, confidence interval.

IMPORTANT SAFETY INFORMATION (continued)

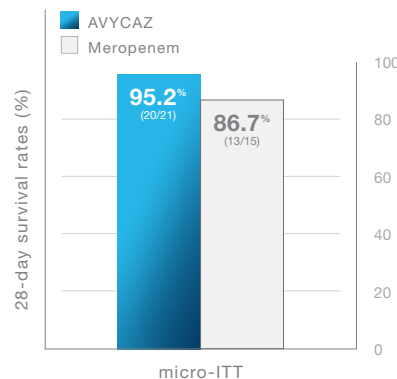
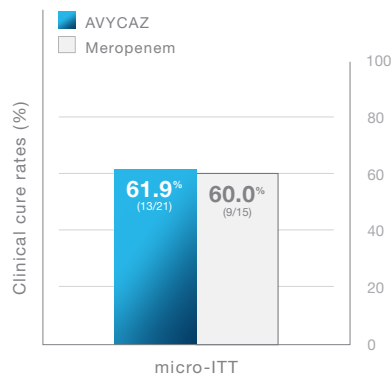
CONTRAINDICATIONS

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Clinical efficacy in HABP/VABP in patients with bacteremia (micro-ITT)[§]

- Of the 382 patients in the micro-ITT population, 36 were bacteremic at baseline[§]

BACTEREMIA SUBSET POPULATION: SURVIVAL THROUGH THE DAY-28 FOLLOW-UP VISIT (micro-ITT)[§]BACTEREMIA SUBSET POPULATION: CLINICAL CURE RATES AT TOC (micro-ITT)[§]

HABP/VABP, hospital-acquired bacterial pneumonia/ventilator-associated bacterial pneumonia. micro-ITT, microbiological intent-to-treat. TOC, test of cure.

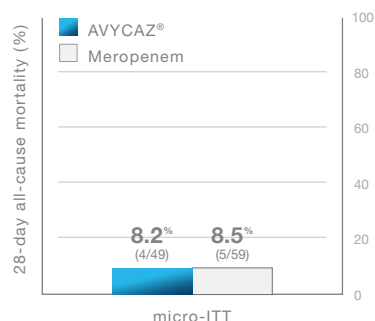
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Avycaz
ceftazidime and avibactam
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Clinical efficacy in HABP/VABP caused by ceftazidime-NS Gram-negative pathogens⁹

- At baseline, 28.3% (108/382) of patients in the micro-ITT population had Gram-negative isolates that were not susceptible to ceftazidime, including 53 patients with *K. pneumoniae* and 28 patients with *P. aeruginosa* isolates⁹
- Among the inclusion criteria for the study was a need for mechanical ventilation or, for already ventilated patients, acute changes made in the ventilator support system to enhance oxygenation, as determined by, for example, arterial blood gas or worsening PaO₂/FiO₂⁴
- The micro-ITT population included a greater baseline proportion of patients who were ventilated (68.6%), had VABP (54.2%), had late VABP (40.3%), and were bacteremic (9.4%) than the ITT population⁴

CEFTAZIDIME-NS SUBSET POPULATION: 28-DAY ALL-CAUSE MORTALITY (micro-ITT)⁹



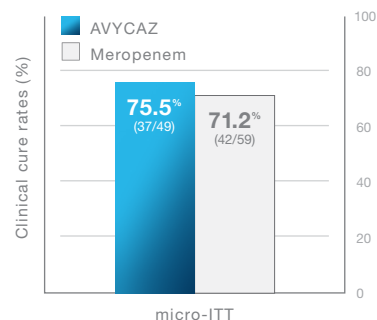
HABP/VABP, hospital-acquired bacterial pneumonia/ventilator-associated bacterial pneumonia. NS, nonsusceptible. micro-ITT, microbiological intent-to-treat.

IMPORTANT SAFETY INFORMATION (continued)

WARNINGS AND PRECAUTIONS

- In a Phase 3 cIAI (complicated intra-abdominal infections) trial in adult patients, clinical cure rates were lower in a subgroup of patients with baseline creatinine clearance (CrCl) of 30 to less than or equal to 50 mL/min compared to those with CrCl greater than 50 mL/min. The reduction in clinical cure rates was more marked in patients treated with AVYCAZ plus metronidazole compared to meropenem-treated patients. Within this subgroup, patients treated with AVYCAZ received a 33% lower daily dose than is currently recommended for patients with CrCl of 30 to less than or equal to 50 mL/min. Clinical cure rate in patients with normal renal function/mild renal impairment (CrCl greater than 50 mL/min) was 85% (322/379) with AVYCAZ plus metronidazole vs 86% (321/373) with meropenem, and clinical cure rate in patients with moderate renal impairment (CrCl 30 to less than or equal to 50 mL/min) was 45% (14/31) with AVYCAZ plus metronidazole vs 74% (26/35) with meropenem. The decreased clinical response was not observed for patients with moderate renal impairment at baseline (CrCl 30 to less than or equal to 50 mL/min) in the Phase 3 cUTI trials or the Phase 3 HABP/VABP trial. Monitor CrCl at least daily in adult and pediatric patients with changing renal function and adjust the dosage of AVYCAZ accordingly.

CEFTAZIDIME-NS SUBSET POPULATION: CLINICAL CURE RATES AT TOC (micro-ITT)⁹



TOC, test of cure.

IMPORTANT SAFETY INFORMATION (continued)

WARNINGS AND PRECAUTIONS

- Serious and occasionally fatal hypersensitivity (anaphylactic) reactions and serious skin reactions have been reported in patients receiving beta-lactam antibacterial drugs. Before therapy with AVYCAZ is instituted, careful inquiry about previous hypersensitivity reactions to other cephalosporins, penicillins, or carbapenems should be made. Exercise caution if this product is to be given to a penicillin or other beta-lactam-allergic patient because cross sensitivity among beta-lactam antibacterial drugs has been established. Discontinue the drug if an allergic reaction to AVYCAZ occurs.
- Clostridium difficile*-associated diarrhea (CDAD) has been reported for nearly all systemic antibacterial drugs, including AVYCAZ, and may range in severity from mild diarrhea to fatal colitis. Careful medical history is necessary because CDAD has been reported to occur more than 2 months after the administration of antibacterial drugs. If CDAD is suspected or confirmed, antibacterials not directed against *C. difficile* should be discontinued, if possible.

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Avycaz
ceftazidime and avibactam
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MORTALITY DATA BY PATHOGEN

28-DAY ALL-CAUSE MORTALITY
BY BASELINE PATHOGEN (micro-ITT)⁹

	AVYCAZ [®]	Meropenem
Enterobacterales		
<i>Klebsiella pneumoniae</i>	16.9% (11/65)	12.0% (9/75)
<i>Enterobacter cloacae</i>	0.0% (0/29)	17.4% (4/23)
<i>Escherichia coli</i>	18.2% (4/22)	13.0% (3/23)
<i>Serratia marcescens</i>	0.0% (0/15)	0.0% (0/13)
<i>Proteus mirabilis</i>	7.1% (1/14)	8.3% (1/12)
<i>Haemophilus influenzae</i>	6.3% (1/16)	8.0% (2/25)
<i>Pseudomonas aeruginosa</i>	14.1% (9/64)	7.8% (4/51)

HABP/VABP, hospital-acquired bacterial pneumonia/ventilator-associated bacterial pneumonia. micro-ITT, microbiological intent-to-treat.

IMPORTANT SAFETY INFORMATION (continued)

WARNINGS AND PRECAUTIONS

- Seizures, nonconvulsive status epilepticus (NCSE), encephalopathy, coma, asterixis, neuromuscular excitability, and myoclonia have been reported in patients treated with ceftazidime, particularly in the setting of renal impairment. Adjust dosing based on CrCl.

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CLINICAL CURE DATA BY PATHOGEN

CLINICAL CURE RATES AT TOC
BY BASELINE PATHOGEN (micro-ITT)⁹

	AVYCAZ	Meropenem
Enterobacterales	69.2% (92/133)	73.5% (108/147)
<i>Klebsiella pneumoniae</i>	67.7% (44/65)	74.7% (56/75)
<i>Enterobacter cloacae</i>	86.2% (25/29)	56.5% (13/23)
<i>Escherichia coli</i>	54.5% (12/22)	73.9% (17/23)
<i>Serratia marcescens</i>	73.3% (11/15)	92.3% (12/13)
<i>Proteus mirabilis</i>	85.7% (12/14)	75.0% (9/12)
<i>Haemophilus influenzae</i>	81.3% (13/16)	80.0% (20/25)
<i>Pseudomonas aeruginosa</i>	59.4% (38/64)	72.5% (37/51)

TOC, test of cure.

IMPORTANT SAFETY INFORMATION (continued)

WARNINGS AND PRECAUTIONS

- Prescribing AVYCAZ in the absence of a proven or strongly suspected bacterial infection is unlikely to provide benefit to the patient and increases the risk of the development of drug-resistant bacteria.

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ADVERSE REACTIONS IN HABP/VABP

DOSING

INCIDENCE OF SELECTED ADVERSE DRUG REACTIONS OCCURRING IN 1% OR MORE OF PATIENTS RECEIVING AVYCAZ® IN THE PHASE 3 HABP/VABP TRIAL⁹

	AVYCAZ* % (N=436)	Meropenem† % (N=434)
Gastrointestinal disorders		
Nausea	3%	2%
Skin and subcutaneous tissue disorders		
Pruritus	2%	1%

*2.5 grams (ceftazidime 2 grams and avibactam 0.5 grams) IV over 120 minutes every 8 hours.

†1 gram IV over 30 minutes every 8 hours.

- Adverse reactions occurring at 5% or greater in patients receiving AVYCAZ were diarrhea and vomiting⁹

HABP/VABP, hospital-acquired bacterial pneumonia and ventilator-associated bacterial pneumonia. IV, intravenous.

IMPORTANT SAFETY INFORMATION (continued)

ADVERSE REACTIONS

Adult cIAI, cUTI and HABP/VABP Patients:

The most common adverse reactions in adult patients with cIAI ($\geq 5\%$ when used with metronidazole) were diarrhea (8%), nausea (7%), and vomiting (5%). The most common adverse reactions in adult patients with cUTI (3%) were diarrhea and nausea. The most common adverse reactions in adult patients with HABP/VABP ($\geq 5\%$) were diarrhea (15%) and vomiting (6%).

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DOSAGE OF AVYCAZ IN HABP/VABP IN PATIENTS WITH NORMAL RENAL FUNCTION (CREATININE CLEARANCE GREATER THAN 50 mL/min)⁹

INFECTION	DOSE	FREQUENCY	INFUSION TIME (HOURS)	DURATION OF TREATMENT
HABP/VABP	2.5 grams	Every 8 hours	2	HABP/VABP: 7 to 14 days

DOSAGE ADJUSTMENTS IN PATIENTS WITH RENAL IMPAIRMENT⁹

Estimated creatinine clearance (mL/min)*	Recommended dosage regimen for AVYCAZ
31 to 50	1.25 g (1 g ceftazidime and 0.25 g avibactam) IV (over 2 hours) every 8 hours
16 to 30	0.94 g (0.75 g ceftazidime and 0.19 g avibactam) IV (over 2 hours) every 12 hours
6 to 15†	0.94 g (0.75 g ceftazidime and 0.19 g avibactam) IV (over 2 hours) every 24 hours
Less than or equal to 5†	0.94 g (0.75 g ceftazidime and 0.19 g avibactam) IV (over 2 hours) every 48 hours

*As calculated using the Cockcroft-Gault formula.

†All doses of AVYCAZ are administered over 2 hours.

‡Both ceftazidime and avibactam are hemodialyzable; thus, administer AVYCAZ after hemodialysis on hemodialysis days.

- Monitor creatinine clearance (CrCl) at least daily in adult patients with changing renal function and adjust the dosage of AVYCAZ accordingly⁹
- No dosing adjustment is necessary for AVYCAZ in patients with impaired hepatic function⁹

HABP/VABP, hospital-acquired bacterial pneumonia/ventilator-associated bacterial pneumonia. cUTI, complicated urinary tract infections. cIAI, complicated intra-abdominal infections. IV, intravenous.

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for injection (2.5 g)

WHEN YOU SUSPECT CERTAIN THREATENING
GRAM-NEGATIVE PATHOGENS IN HABP/VABP*



TAKE ACTION WITH AVYCAZ®

- AVYCAZ was noninferior to meropenem with regard to the primary endpoint: 28-day all-cause mortality in the ITT population⁹
- AVYCAZ demonstrated efficacy in a subset population of patients with ceftazidime-NS Gram-negative pathogens⁹
- AVYCAZ showed *in vitro* activity against most isolates of some of the most common Gram-negative pathogens in HABP/VABP, including *P. aeruginosa*, *K. pneumoniae*, and *E. coli*^{4,9}

*See front cover for a list of indicated pathogens in HABP/VABP.
See inside for full clinical results in HABP/VABP.

ADDITIONAL INDICATIONS AND USAGE

Complicated Intra-Abdominal Infections (cIAI)

AVYCAZ, in combination with metronidazole, is indicated for the treatment of complicated intra-abdominal infections (cIAI) in adult and pediatric patients 3 months or older caused by the following susceptible Gram-negative microorganisms: *Escherichia coli*, *Klebsiella pneumoniae*, *Proteus mirabilis*, *Enterobacter cloacae*, *Klebsiella oxytoca*, *Citrobacter freundii* complex, and *Pseudomonas aeruginosa*.

Complicated Urinary Tract Infections (cUTI), including Pyelonephritis

AVYCAZ is indicated for the treatment of complicated urinary tract infections (cUTI) including pyelonephritis in adult and pediatric patients 3 months or older caused by the following susceptible Gram-negative microorganisms: *Escherichia coli*, *Klebsiella pneumoniae*, *Enterobacter cloacae*, *Citrobacter freundii* complex, *Proteus mirabilis*, and *Pseudomonas aeruginosa*.

Usage

To reduce the development of drug-resistant bacteria and maintain the effectiveness of AVYCAZ and other antibacterial drugs, AVYCAZ should be used to treat only indicated infections that are proven or strongly suspected to be caused by susceptible bacteria.

IMPORTANT SAFETY INFORMATION

CONTRAINDICATIONS

AVYCAZ is contraindicated in patients with known serious hypersensitivity to the components of AVYCAZ (ceftazidime and avibactam), avibactam-containing products, or other members of the cephalosporin class.

**Please see additional Important Safety Information throughout.
Please also see [full Prescribing Information](#).**

References: 1. Kalil AC, Metersky ML, Klompas M, et al. Management of adults with hospital-acquired and ventilator-associated pneumonia: 2016 Clinical Practice Guidelines by the Infectious Diseases Society of America and the American Thoracic Society. *Clin Infect Dis*. 2016;63(5):e61-e111. 2. Magill SS, Edwards JR, Bamberg W, et al, for the Emerging Infections Program Healthcare-Associated Infections Antimicrobial Use Prevalence Survey Team. Multistate point-prevalence survey of health care-associated infections. *N Engl J Med*. 2014;370(13):1198-1208. 3. Cilloniz C, Martin-Loeches I, Garcia-Vidal C, San Jose A, Torres A. Microbial etiology of pneumonia: epidemiology, diagnosis and resistance patterns. *Int J Mol Sci*. 2016;17(12):2120. 4. Data on file. Allergan, Inc. 5. Melsen WG, Rovers MM, Groenwold RHH, et al. Attributable mortality of ventilator-associated pneumonia: a meta-analysis of individual patient data from randomised prevention studies. *Lancet Infect Dis*. 2013;13(8):665-671. 6. Muscedere JG, Day A, Heyland DK. Mortality, attributable mortality, and clinical events as end points for clinical trials of ventilator-associated pneumonia and hospital-acquired pneumonia. *Clin Infect Dis*. 2010;51(suppl 1):S120-S125. 7. Kollef MH, Hamilton CW, Ernst FR. Economic impact of ventilator-associated pneumonia in a large matched cohort. *Infect Control Hosp Epidemiol*. 2012;33(3):250-256. 8. Esperatti M, Ferrer M, Giunta V, et al. Validation of predictors of adverse outcomes in hospital-acquired pneumonia in the ICU. *Crit Care Med*. 2013;41(9):2151-2161. 9. AVYCAZ® (ceftazidime and avibactam) [prescribing information]. Madison, NJ: Allergan USA, Inc. 10. Antibiotic Resistance Threats in the United States, 2013. Centers for Disease Control and Prevention website. <https://www.cdc.gov/drugresistance/threat-report-2013/pdf/ar-threats-2013-508.pdf>. Accessed October 5, 2020. 11. Guh AY, Limbago BM, Kallen AJ. Epidemiology and prevention of carbapenem-resistant Enterobacteriaceae in the United States. *Expert Rev Anti-infect Ther*. 2014;12(5):565-580. 12. CLSI. *Performance Standards for Antimicrobial Susceptibility Testing*. 29th ed. CLSI supplement M100. Wayne, PA: Clinical and Laboratory Standards Institute; 2019.

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Avycaz®
ceftazidime and avibactam
for injection (2.5 g)