

Supplemental Online Content

Moon RC, MacVane SH, David J, Morton JB, Rosenthal N, Claeys KC. Clinical outcomes of early phenotype-desirable antimicrobial therapy for *Enterobacterales* bacteremia. *JAMA Netw Open*. 2024;7(12):e2451633. doi:10.1001/jamanetworkopen.2024.51633

eTable 1. Code Types and Values for Clinical Conditions

eTable 2. Charlson-Deyo comorbidities and Related Diagnosis and Procedure Codes

eFigure 1. Flowchart of Patient Selection

eFigure 2. Standardized Mean Differences Before and After Inverse Probability Weighting Using Propensity Score

eFigure 3. First Effective Antibiotic(s) Received, Among Patients Receiving PDAT

eFigure 4. Grid Illustrating the Desirability of Outcome Ranking for the Management of Antimicrobial Therapy (DOOR-MAT) for the Treatment of Bloodstream Infections Caused by *Escherichia coli*, *Klebsiella oxytoca*, *Klebsiella pneumoniae*, or *Proteus mirabilis*

This supplemental material has been provided by the authors to give readers additional information about their work.

eTable 1. Code Types and Values for Clinical Conditions

Conditions	Code Type	Code Value
<i>Clostridioides difficile</i> infection	ICD-10-CM	A04.7%
Acute kidney injury	ICD-10-CM	N17%
Renal replacement therapy	ICD-10-PCS	5A1D70Z, 5A1D80Z, 5A1D90Z
	CPT	90935, 90937, 90940, 90945, 90947, 90969, 90970, 90997, 90999
	Dx	S9335, S9339, Z6004, Z6006, Z6020
Invasive mechanical ventilator use	ICD-10-PCS	5A1935Z, 5A1945Z, 5A1955Z, 0B21XEZ, 0BH13EZ, 0BH17EZ, 0BH18EZ
	CPT	31500
	HCPCS	A4483

ICD-10-CM: International Classification of Diseases, 10th Revision, Clinical Modification

ICD-10-PCS: ICD-10-CM: International Classification of Diseases, 10th Revision, Procedure Coding System

CPT: Current Procedural Terminology

HCPCS: Healthcare Common Procedure Coding System

eTable 2. Charlson-Deyo comorbidities and Related Diagnosis and Procedure Codes

Comorbidity	Code Type	Code Values
Myocardial infarction	Dx	I21.x, I22.x, I23.x, I25.2
Congestive heart failure	Dx	I50.x
Peripheral vascular disease	Dx	I73.9, I71.00, I71.01, I71.02, I71.03, I71.1, I71.2, I71.3, I71.4, I71.5, I71.6, I71.8, I71.9, I96, Z95.828
	Proc	04RK07Z, 04RK0JZ, 04RK0KZ, 04RK47Z, 04RK4JZ, 04RK4KZ, 04RL07Z, 04RL0JZ, 04RL0KZ, 04RL47Z, 04RL4JZ, 04RL4KZ, 04RM07Z, 04RM0JZ, 04RM0KZ, 04RM47Z, 04RM4JZ, 04RM4KZ, 04RN07Z, 04RN0JZ, 04RN0KZ, 04RN47Z, 04RN4JZ, 04RN4KZ, 04RP07Z, 04RP0JZ, 04RP0KZ, 04RP47Z, 04RP4JZ, 04RP4KZ, 04RQ07Z, 04RQ0JZ, 04RQ0KZ, 04RQ47Z, 04RQ4JZ, 04RQ4KZ, 04RR07Z, 04RR0JZ, 04RR0KZ, 04RR47Z, 04RR4JZ, 04RR4KZ, 04RS07Z, 04RS0JZ, 04RS0KZ, 04RS47Z, 04RS4JZ, 04RS4KZ, 04RT07Z, 04RT0JZ, 04RT0KZ, 04RT47Z, 04RT4JZ, 04RT4KZ, 04RU07Z, 04RU0JZ, 04RU0KZ, 04RU47Z, 04RU4JZ, 04RU4KZ, 04RV07Z, 04RV0JZ, 04RV0KZ, 04RV47Z, 04RV4JZ, 04RV4KZ, 04RW07Z, 04RW0JZ, 04RW0KZ, 04RW47Z, 04RW4JZ, 04RW4KZ, 04RY07Z, 04RY0JZ, 04RY0KZ, 04RY47Z, 04RY4JZ, 04RY4KZ
Cerebrovascular disease	Dx	I60.x, I61.x, I62.x, I63.x, I65.x, I66.x, I67.x, I68.x, I69.x, G45.x
Dementia	Dx	F03.90, F01.50, F01.51, F03.91, F02.80, F02.81
Chronic pulmonary disease	Dx	J40, J41.0, J41.1, J44.9, J44.0, J41.8, J42, J43.9, J45.20, J45.21, J45.22, J44.1, J45.990, J45.991, J45.909, J45.998, J45.902, J45.901, J47.9, J47.1, J67.0, J67.1, J67.2, J67.3, J67.4, J67.5, J67.6, J67.7, J67.8, J67.9, J60, J61, J62.8, J63.0, J63.1, J63.2, J63.3, J63.4, J63.5, J63.6, J66.0, J66.1, J66.2, J66.8, J64, J68.4
Rheumatic disease	Dx	M32.10, M34.0, M34.1, M34.9, M33.20, M06.9, M05.00, M05.30, M05.60, M06.1, M05.10, M35.3
Peptic ulcer disease	Dx	K25.0, K25.1, K25.2, K25.3, K25.4, K25.5, K25.6, K25.7, K25.9, K26.0, K26.1, K26.2, K26.3, K26.4, K26.5, K26.6, K26.7, K26.9, K27.0, K27.1, K27.2, K27.3, K27.4, K27.5, K27.6, K27.7, K27.9, K28.0, K28.1, K28.2, K28.3, K28.4, K28.5, K28.6, K28.7, K28.9
Mild liver disease	Dx	K70.30, K73.9, K73.0, K75.4, K73.2, K73.8, K74.0, K74.60, K74.69, K74.3, K74.4, K74.5
Diabetes without chronic complication	Dx	E11.9, E10.9, E13.9, E11.65, E10.65, E13.65, E10.1x, E11.1x, E13.1x, E11.0x, E13.0x, E11.64x, E10.64x, E13.64x
Diabetes with chronic complication	Dx	E10.2x, E10.3x, E10.4x, E10.5x, E10.61x, E10.62x, E10.63x, E10.69, E10.8, E11.2x, E11.3x, E11.4x, E11.5x, E11.61x, E11.62x, E11.63x, E11.69, E11.8, E13.2x, E13.3x, E13.4x, E13.5x, E13.61x, E13.62x, E13.63x, E13.69, E13.8
Hemiplegia or paraplegia	Dx	G04.1, G11.4, G80.1, G80.2, G81.x, G82.x, G83.0, G83.1x, G83.2x, G83.3x, G83.4, G83.9
Moderate or severe renal disease	Dx	I12.0, I13.11, I13.2, N03.2, N03.3, N03.5, N03.8, N03.9, N05.2, N05.5, N05.9, N08, N18.x, N19.x, N25.x, Z49.0x, Z49.3x, Z94.0, Z99.2
Any malignancy, including lymphoma and leukemia, except malignant neoplasm of skin	Dx	C00.x-C75.x (except C43.x and C44.x), C81.x-C85.x, C88.x, C90.x, C91.x-C95.x, C96.x, C7A.xxx, C7B.xxx, D00.xx, D01.xx, D02.x, D03.xx, D05.xx, D06.x, D07.xx, D09.xx, D47.9
Moderate or severe liver disease	Dx	I85.00, I85.01, I85.10, I85.11, I86.4, K70.4x, K71.1x, K71.7, K72.xx, K76.6, K76.7
Metastatic solid tumor	Dx	C77.x, C78.x, C79.x, C80.0

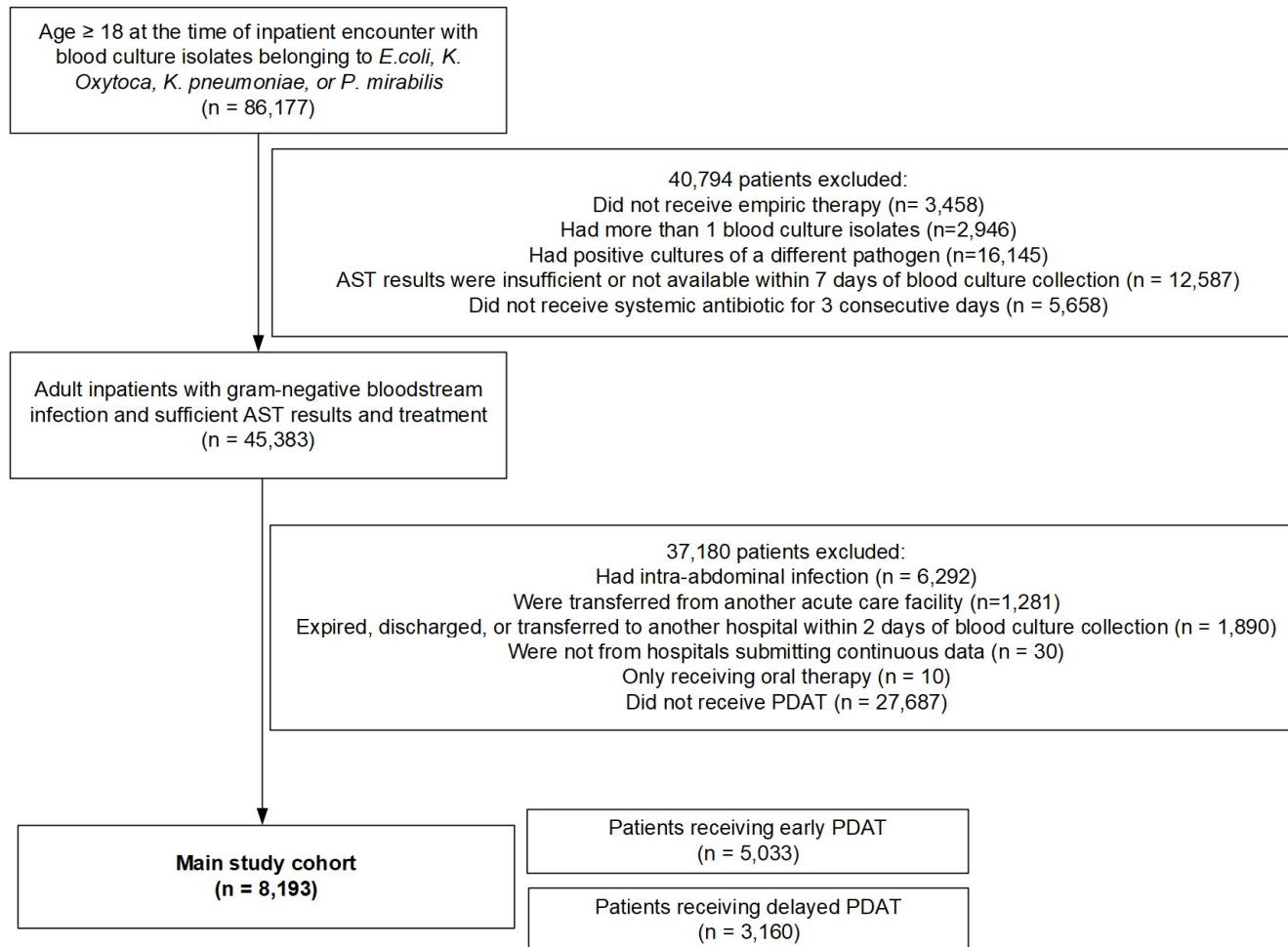
HIV disease	Dx	B20
-------------	----	-----

Dx: ICD-10-CM (International Classification of Diseases, 10th Revision, Clinical Modification)

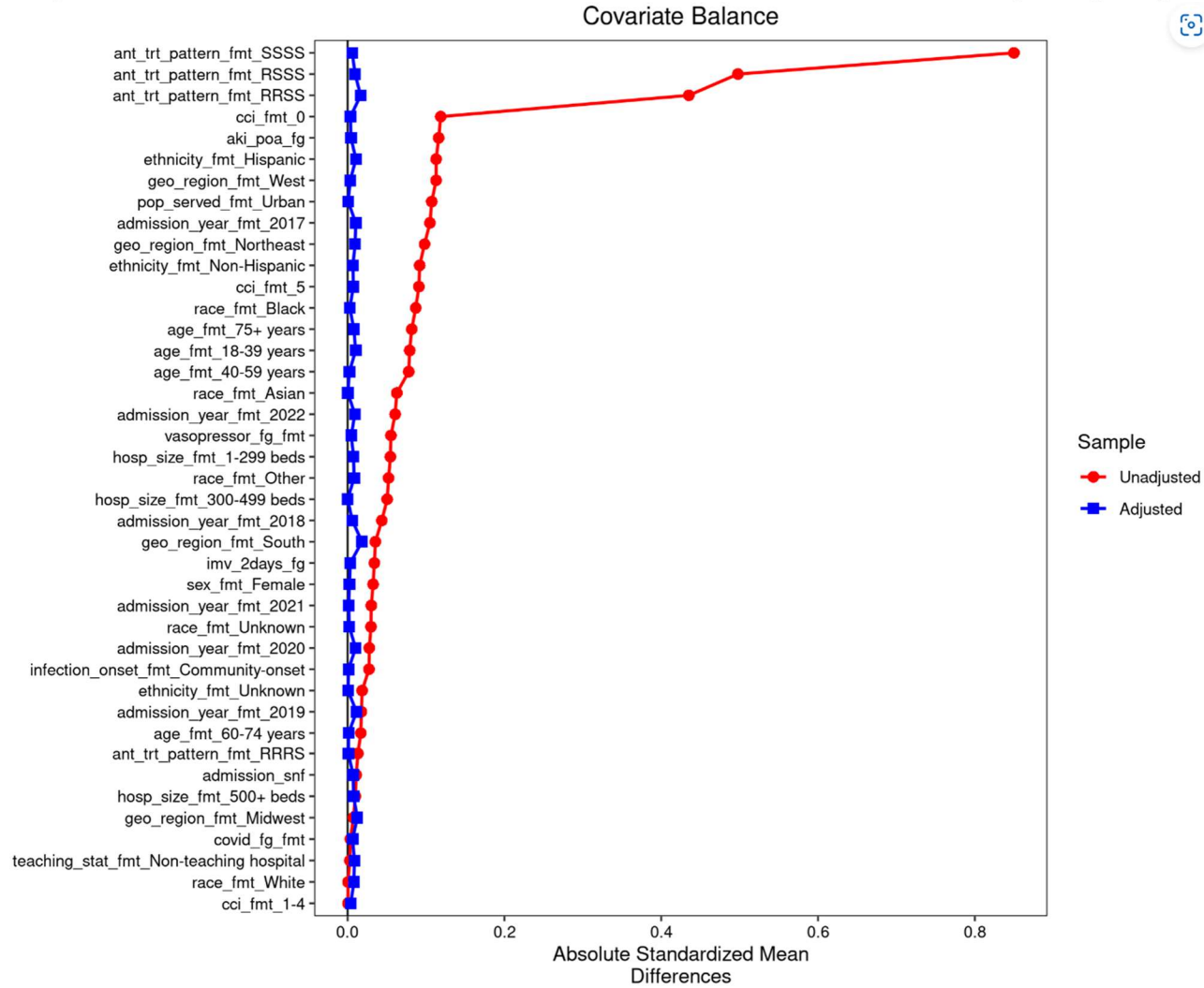
Proc: ICD-10-PCS (International Classification of Diseases, 10th Revision, Procedure Coding System)

HIV: human immunodeficiency virus

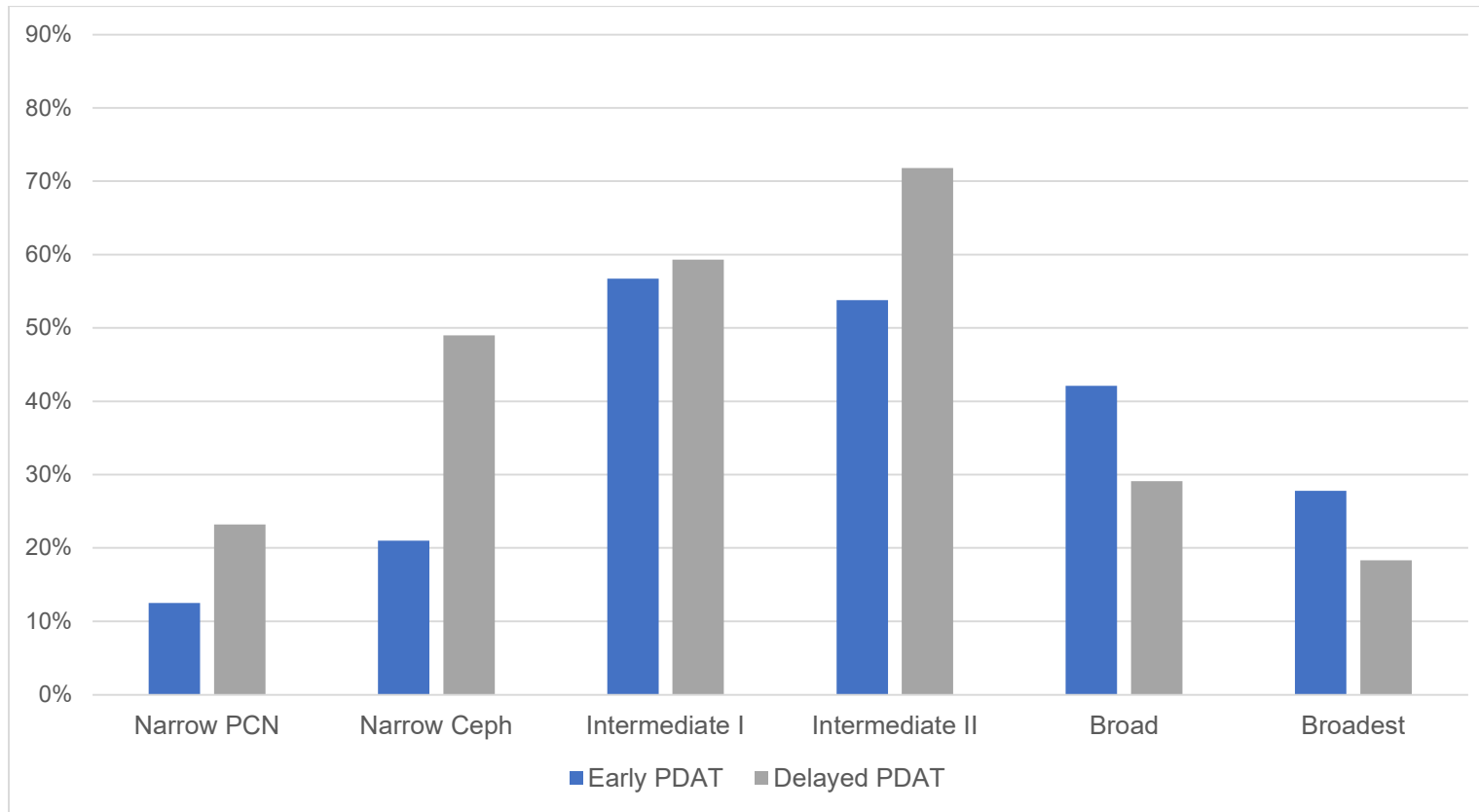
eFigure 1. Flowchart of Patient Selection



eFigure 2. Standardized Mean Differences Before and After Inverse Probability Weighting Using Propensity Score



eFigure 3. First Effective Antibiotic(s) Received, Among Patients Receiving PDAT



eFigure 4. Grid Illustrating the Desirability of Outcome Ranking for the Management of Antimicrobial Therapy (DOOR-MAT) for the Treatment of Bloodstream Infections Caused by *Escherichia coli*, *Klebsiella oxytoca*, *Klebsiella pneumoniae*, or *Proteus mirabilis*

	Phenotype according to:			
	1. Narrow-spectrum β -lactams (S ¹ to any Narrow-Spectrum Penicillins or Narrow-Spectrum Cephalosporins) 2. Expanded-spectrum cephalosporin (S to Intermediate I) 3. Carbapenem (S to any Broad \pm Intermediate II) 4. Novel β -lactams/ β -lactamase inhibitors (R to Broad)			
Antibiotic received	S-S-S-S	R-S-S-S	R-R-S-S	R-R-R-S
Narrow-Spectrum Penicillins or Narrow-Spectrum Cephalosporins (e.g., cefazolin, ampicillin-sulbactam)	S	R	R	R
Intermediate I or Oral 3rd-Gen Cephalosporins (e.g., ceftriaxone, cefdinir)	S	S	R	R
Intermediate II (e.g., Cefepime, Piperacillin-tazobactam)	S	S	S	R
Broad (e.g., Carbapenems)	S	S	S	R
Broadest (e.g., ceftazidime-avibactam)	S	S	S	S

¹S indicates susceptibility; R indicates resistance

Category	
	Desirable (PDAT)
	Potentially appropriate
	Appropriate but broad
	Overtreatment
	Undertreatment