Out-of-Pocket Costs and Prescription Reversals With Oral Linezolid

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Objective: To determine the relationship between benefit design, out-of-pocket costs, and prescription reversals, and the impact of reversals on rehospitalizations and total healthcare costs among Medicare members prescribed oral linezolid.

Study Design: Medicare members from a national health plan prescribed oral linezolid posthospitalization for skin and soft tissue infection (SSTI) or pneumonia were followed retrospectively.

Methods: Members were identified by an oral linezolid prescription between June 1, 2007, and April 30, 2011, where the index event was a prescription fill or reversal less than 2 days before or 10 days after discharge. Associations between out-of-pocket costs and reversal, and between reversal and rehospitalization 30 days postindex, were compared for prescription fills versus reversals. A generalized linear model calculated adjusted total healthcare costs per member controlling for age, sex, geographic region, and clinical characteristics.

Results: Reversal rates rose progressively from 2% for members with out-of-pocket costs of $0 to 27% for members with out-of-pocket costs higher than $100 ($P$ <.0001). Infection-related rehospitalizations were 23% versus 9% for members with a prescription reversal versus a fill (P <.0001). While postdischarge prescription drug costs were $1228.78 lower ($P$ <.0001), adjusted mean medical costs were $2061.69 higher ($P$ = .0033) and total healthcare costs were $1280.93 higher ($P$ = .0349) for reversal versus fill members.

Conclusions: Higher out-of-pocket costs were associated with higher rates of reversal, and reversals were associated with higher rates of rehospitalization and adjusted total healthcare costs among Medicare members prescribed oral linezolid posthospitalization for SSTI or pneumonia.

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For author information and disclosures, see end of text.

Linezolid is indicated for the treatment of vancomycin-resistant *Enterococcus faecium* infections, complicated and uncomplicated skin and soft tissue infections (SSTIs), and nosocomial and community-acquired pneumonia (**eAppendix** available at **www.ajmc.com**).[1] Pathogens for such infections include *Staphylococcus aureus* (methicillin-susceptible and resistant strains), *Streptococcus pneumoniae* (including multidrug-resistant strains), *Streptococcus pyogenes*, and *Streptococcus agalactiae*. Among these, methicillin-resistant *Staphylococcus aureus* (MRSA) infections have received particular attention in the 2000s commensurate with evidence indicating a dramatic rise in the rate of MRSA-related hospital admissions.[2-4] Whereas more recent studies suggest community-onset and hospital-onset MRSA infections may have tapered and declined somewhat since 2005,[5,6] the burden of SSTIs overall remains substantial, and if these infections are not appropriately treated they can result in serious life-threatening consequences.

Among antibiotics used to treat SSTIs and pneumonia, linezolid is available in both intravenous and oral forms. Oral bioavailability is approximately 100%,[1] allowing for sequential intravenous to oral administration without changing the drug or dosing regimen. The availability of intravenous and oral forms may allow for a shortened length of hospital stay if treatment is continued orally after discharge, resulting in lower total costs of treating the infection.[7] However, due to oral linezolid's high out-of-pocket costs, patients have been known to decline purchase of (reversals) their prescriptions and receive treatment with an alternative antibiotic or forgo treatment altogether.[8]

Previous research by Ball and colleagues[7] based on Humana Inc health plan members examined whether rehospitalization rates and total healthcare costs increased for members with a prescription reversal versus a fill of oral linezolid. Although members with a claim reversal were rehospitalized at higher rates and had higher medical costs compared with those who had a fill, they did not have higher total healthcare costs than members with a prescription fill for oral linezolid. This implied that oral linezolid and alternative antibiotics or the absence of treatment were similarly cost-effective. However, one limitation of the study by Ball and colleagues was that diagnosis for the initial hospitalization was not confirmed for an infection indicated for linezolid treatment. A second limitation

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of the study by Ball and colleagues was that members were followed for as long as 60 days postdischarge, which potentially led to inclusion of healthcare utilization and costs unrelated to the initial infection and its consequences.

This research sought to refine the study by Ball and colleagues by restricting the identification of members to those whose initial hospitalization was for complicated or uncomplicated SSTI or pneumonia diagnoses (eAppendix), as well as shortening the postdischarge time period to 30 days to examine acute consequences more likely related to the initial hospitalization. Members from both commercial and Medicare lines of business were initially identified for the study, but all analyses were conducted separately by line of business because of significant differences in plan reimbursement. This study focuses on the Medicare line of business, which comprised a majority (71%) of the total membership.

Take-Away Points

High out-of-pocket costs (coinsurance rather than copay) were associated with prescription reversals among Medicare members prescribed oral linezolid after hospitalization for an uncomplicated or complicated skin infection or pneumonia. Also, members with prescription reversals experienced higher rates of rehospitalization and higher total healthcare costs than members with prescription fills.

- Reversal rates rose from 2% for out-of-pocket costs of $0 to 27% for out-of-pocket costs of more than $100.
- Infection-related rehospitalizations were 23% for reversal members versus 9% for fill members.
- Adjusted mean postdischarge healthcare costs were $1280.93 higher for members with reversals than for fill members.

METHODS

Study Data

This study utilized data from Humana's SAS database which contains enrollment, medical, and pharmacy claims data for Humana's Medicare membership. All data sources were merged using de-identified member data. The finalized protocol was approved by a central independent institutional review board.

Study Design

We performed a retrospective cohort analysis of all Medicare members identified as having a prescription claim for oral linezolid after discharge from an inpatient stay for complicated or uncomplicated SSTI or pneumonia (eAppendix). Members were identified during the time period of June 1, 2007, to April 30, 2011. The service date of the first linezolid prescription claim was used to identify the date of the index event (fill or reversal). Members who were identified with a reversal in the pharmacy claims but who filled the prescription for oral linezolid within 3 days after the reversal were recategorized as fill members. Members with a claim reversal were compared with those without a reversal in terms of plan design (whether members paid a copay or had coinsurance), member out-of-pocket costs, infection-related (complicated or uncomplicated SSTI or pneumonia) and all-cause rehospitalization (inpatient admission with overnight stay), and healthcare costs (prescription, medical, and total) in the 30 days post discharge.

Study Population

Study subjects were fully insured Medicare Advantage members aged 18 to 89 years who were continuously enrolled for 120 days before and 30 days after the index event (linezolid fill or reversal) and whose index linezolid claim was processed no more than 2 days before or 10 days after hospital discharge. A diagnosis of complicated or uncomplicated SSTI or pneumonia in any position on the inpatient claim was required for the initial hospitalization.

Members were excluded from analysis if they were enrolled as administrative services–only populations (members of employer-funded plans excluded by contract from research), had a claim for pregnancy (*International Classification of Diseases, Ninth Revision* codes 630.xx-679.xx, V22.xx, and V23.xx), or were in a skilled nursing facility/nursing home any time during the study period.

Statistical Analysis

Claims data for Medicare members prescribed oral linezolid and discharged from an inpatient stay for complicated or uncomplicated SSTI or pneumonia were examined for benefit design, out-of-pocket costs, reversals, rehospitalizations, and healthcare costs. Visual inspection was used to distinguish between copay and coinsurance because the medical claims did not contain an explicit indicator for copay or coinsurance. All integer values (ie, $6, $10, $25, $30, $100, $150) and known noninteger values of Medicare Part D copays (ie, $5.60, $6.30) were classified as copay, while all remaining noninteger values (ie, $57.43, $238.59) were classified as coinsurance. For all descriptive analyses, means were compared using 2-sample *t* tests and count variables were compared using χ^2 tests. Demographic and clinical characteristics included age, sex, geographic region, low-income status and dual eligibility (Medicare and Medicaid eligibility), characteristics of the initial hospitalization such as surgery or intensive care unit stay, and the RxRisk-V comorbidity score. The RxRisk-V score[9-13] is derived from drug claims data and thus can be applied to data from a narrow window of claims rather than the

Table 1. Demographic and Clinical Characteristics of Medicare Members by Prescription Fill Versus Reversal

Characteristics	Prescription Fill (n = 887)	Prescription Reversal (n = 175)	*P*
Mean age, y (SD)	66.5 (12.4)	66.3 (10.4)	.8395
Age categories, y, n (%)			
18-34	10 (1.0)	1 (1.0)	
35-49	88 (10.0)	11 (6.0)	
50-64	213 (24.0)	53 (30.0)	.1447
65-79	453 (51.0)	93 (53.0)	
≥80	123 (14.0)	17 (10.0)	
Female, n (%)	441 (50.0)	78 (45.0)	.2132
Geographic region, n (%)			
Northeast	15 (2.0)	0 (0.0)	
Midwest	161 (18.0)	32 (18.0)	.0804
South	621 (70.0)	133 (76.0)	
West	90 (10.0)	10 (6.0)	
Low-income subsidy and/or dual-eligible status, n (%)	374 (42.0)	17 (10.0)	<.0001
Initial hospitalization, n (%)			
Surgery	405 (46.0)	77 (44.0)	.6870
ICU stay	237 (27.0)	43 (25.0)	.5556
SSTI	748 (84.0)	160 (91.0)	.0148
Complicated SSTI	215 (24.0)	52 (30.0)	.1270
Pneumonia	149 (17.0)	16 (9.0)	.0106
Mean RxRisk-V score (SD)	6.7 (3.2)	6.4 (2.7)	.2725
Mean preindex healthcare costs (SD)	$16,728 ($13,280)	$15,146 ($11,426)	.1313

ICU indicates intensive care unit; SD, standard deviation; SSTI, skin and soft tissue infection.

broader window typically necessary for medical claims–based comorbidity scores such as the Charlson Comorbidity Index score.[14]

The impact of the reversal on postindex healthcare costs (plan payment plus member medical cost) was modeled using a generalized linear model (GLM) with a gamma distribution as its probability distribution and log link as its link function. Generalized linear models are commonly utilized to account for distributions of highly skewed data, characteristic of medical expenditures.[15] The log link function for the GLM is specified below, where μ refers to postindex healthcare costs:

$$\log \mu = reversal + Out\text{-}of\text{-}PocketCategory + age + gender + region + LowIncomeSubsidy\text{-}DualEligible + RxRiskV + ICUstay + surgery + pre\text{-}indexhealthcare\ costs$$

Covariates included in the model were age, sex, geographic region, low-income subsidy/dual eligibility, baseline RxRisk-V score, a surgical procedure or an intensive care unit stay during the initial hospitalization, out-of-pocket costs, and preindex healthcare costs (per $1000). In order to include data on members with no costs during the follow-up period, $1 was added to all member costs. The models provided adjusted mean costs and 95% confidence intervals for the prescription fill and reversal groups.

RESULTS

A total 1062 Medicare members were available for analysis. Among the total sample, 16.5% of the members reversed their prescription for oral linezolid. Demographic and clinical characteristics by fill versus reversal groups indicated there were no statistical differences in age, sex, or geographic region (Table 1). However, a higher percentage of the members filling their linezolid prescription had low-income subsidy/dual-eligibility status compared with members reversing their linezolid prescription (*P* <.0001). A majority of the characteristics of the initial hospitalization were similar, with the exception that a statistically higher percentage of reversal

Figure. Reversal Rates by Categories of Out-of-Pocket Costs

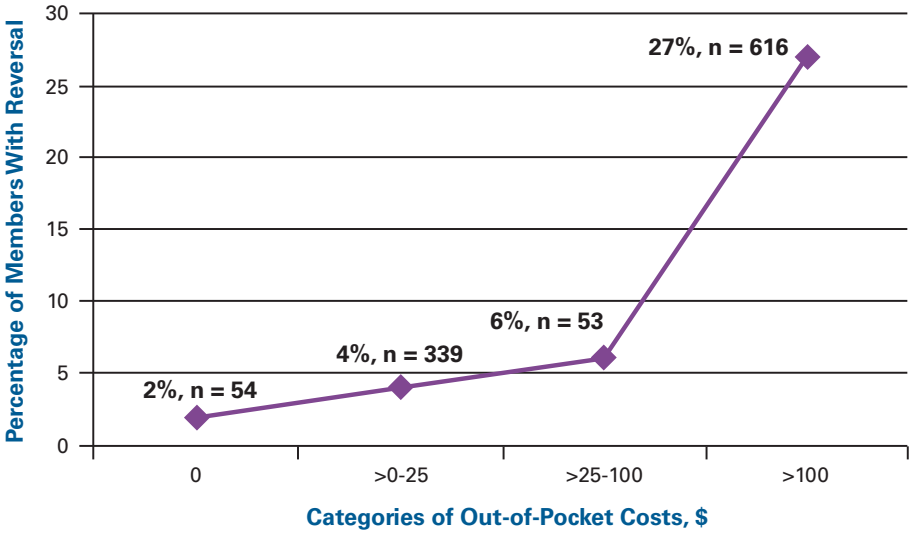

Table 2. Rehospitalization Rates of Medicare Members by Prescription Fill Versus Reversal

Type of Rehospitalization	Prescription Fill, n (%)	Prescription Reversal, n (%)	*P*
All-cause rehospitalizations	172 (20.0)	55 (30.0)	.0027
Infection-related rehospitalizations	83 (9.0)	42 (23.0)	<.0001
SSTI	74 (89.0)	37 (88.0)	
Pneumonia	7 (8.0)	5 (12.0)	.5052
SSTI and pneumonia	2 (2.0)	0 (0.0)	
SSTI initial and rehospitalization	76 (9.0)	37 (20.0)	<.0001
Pneumonia initial and rehospitalization	7 (1.0)	5 (3.0)	.0268

SSTI indicates skin and soft tissue infection.

members were hospitalized for complicated or uncomplicated SSTI (P = .0148). That corresponded to a higher percentage of fill members hospitalized for pneumonia (P = .0106). The RxRisk-V comorbidity scores and preindex total healthcare costs were not statistically different between the 2 groups.

The Figure shows that as out-of-pocket costs increased the percentage of members reversing their prescriptions also increased, with out-of-pocket costs above $100 resulting in a reversal rate as high as 27% (P <.0001). It is assumed that patients with out-of-pocket costs of more than $100 were subject to a coinsurance benefit versus a copay for most patients with out-of-pocket costs of less than $100. Mean (standard deviation) out-of-pocket costs for members with a copay were $7.05 ($14.89); for members with coinsurance the mean out-of-pocket cost was $466.52 ($574.67).

Among members who reversed their prescriptions for oral linezolid, 73% filled a prescription for an alternative antibiotic during the 30 days after discharge, while 27% received no antibiotic. Among patients with prescriptions for alternative antibiotics, a small percentage (9%) were treated with oral or parenteral vancomycin, and 0.6% were treated with parenteral tigecycline. Other, more common antibiotics with prescriptions filled during the 30 days after discharge were amoxicillin (10.5%), ciprofloxacin (15.7%), clindamycin (11.0%), doxycycline (10.5%), and levofloxacin (7.0%) (complete list provided upon request).

As shown in Table 2, infection-related (complicated or uncomplicated SSTI or pneumonia) rehospitalizations were 14 percentage points higher (P <.0001) and all-cause rehospitalizations were 10 percentage points higher (P = .0027) in the reversal group versus the fill group. For each type of infection (complicated or uncomplicated SSTI, pneumonia, or both SSTI and pneumonia), no significant difference was detected between the fill and reversal groups. When grouping prescription fill versus reversal groups by the percentage readmitted for the same infection as the one diagnosed at initial hospitalization, a higher percentage of the reversal group was hospitalized for the same infection: 20% reversal group versus

Table 3. Unadjusted Postindex Healthcare Costs by Prescription Fill or Reversal

Cost Outcome Measure	Mean (SD) / Median (Range)		*P*
	Prescription Fill	Prescription Reversal	
Postindex prescription costs	$1826.80 ($1476.10) / $1456.90 ($5.70-$16,978.00)	$552.05 ($745.98) / $336.58 ($0.00-$6227.20)	<.0001
Postindex medical costs	$4061.10 ($7726.20) / $1284.10 ($0.00-$82,136.00)	$6257.00 ($11,149.00) / $1547.00 ($0.00-$77,758.00)	.0013
Postindex total costs	$5888.00 ($7917.50) / $3220.40 ($193.23-$82,690.00)	$6809.00 ($11,311.00) / $2263.30 ($0.52-$78,032.00)	.1853

SD indicates standard deviation.

Table 4. Adjusted Postindex Healthcare Costs by Prescription Fill or Reversal

Cost Outcome Measure	Mean (95% CI)		*P*
	Prescription Fill	Prescription Reversal	
Postindex prescription costs	$2044.28 ($1834.06-$2278.59)	$815.50 ($702.07-$947.26)	<.0001
Postindex medical costs	$4495.07 ($3530.03-$5723.92)	$6556.76 ($4660.62-$9224.33)	.0033
Postindex total costs	$6617.07 ($5650.61-$7748.83)	$7898.00 ($6319.84-$9870.24)	.0349

CI indicates confidence interval.

9% fill group (*P* <.0001) for complicated or uncomplicated SSTI and 3% reversal group versus 1% fill group (*P* = .0268) for pneumonia.

Unadjusted postindex prescription drug, medical, and total healthcare costs are reported in Table 3. Whereas postindex prescription drug costs were significantly lower for members with a reversal (*P* <.0001), postindex medical costs were significantly higher for these members (*P* = .0013) compared with members with a fill. The combined total unadjusted healthcare costs were not statistically different between the 2 groups (*P* = .1853).

Adjusted prescription drug, medical, and total healthcare costs are reported in Table 4. After adjusting for demographic and clinical characteristics, differences in the prescription drug and medical costs remained statistically significant between the fill and reversal groups. Notably, with adjustment, the difference in total healthcare costs between the fill and reversal groups became statistically significant (*P* = .0349), with the mean healthcare cost for the reversal group being $1280.93 higher than that for the fill group.

Parameter estimates (including exponentiated estimates for ease of interpretation) from the GLM for adjusted costs are reported in Table 5. The parameter estimate for the reversal variable was statistically significant, indicating that adjusted costs for members with a reversal were 19.4% higher than those for members with a fill (*P* = .0349). Male sex was associated with a 20.1% increase in adjusted costs (*P* = .0027), and an incremental point increase in the RxRisk-V score was associated with a 4.8% increase in adjusted costs (*P* <.0001). The parameter estimate on preindex healthcare costs was statistically significant, but indicated minimal magnitude. The parameter estimate for members whose out-of-pocket costs were more than $100 was associated with lower adjusted total healthcare costs (*P* = .0080). Parameter estimates for the remaining variables examined were not statistically significant.

Several sensitivity analyses further explored the GLM results by varying cutoffs for the out-of-pocket cost categorical variable (above and below $60, above and below $125), as well as including an interaction term between the reversal term and out-of-pocket-cost term. Results (provided upon request) were generally similar to those specified in Table 5.

DISCUSSION

The current study found that Medicare members with an oral linezolid fill had fewer infection-related and 30-day all-cause hospital readmissions than members who reversed their prescriptions and either did not receive any antibiotic or received a different antibiotic following their reversal. A higher readmission rate, combined with all other types of medical encounters, resulted in higher medical costs during the 30 days after discharge from the initial hospitalization for SSTI or pneumonia. Whereas treatment with oral linezolid was associated with higher postindex prescription drug costs, higher prescription drug costs were offset by lower medical costs for the fill group, resulting in total healthcare costs that were

Table 5. Parameter Estimates From the Generalized Linear Model for Postindex Healthcare Costs

Variable	Parameter Estimate	exp(Parameter)	*P*
Reversal	0.177	1.194	.0349
Age	0.001	1.001	.6132
Sex (male vs female)	0.183	1.201	.0027
Geographic region (West vs Northeast)	–0.325	0.722	.2384
Geographic region (South vs Northeast)	–0.360	0.698	.1664
Geographic region (Midwest vs Northeast)	–0.091	0.913	.7324
RxRisk-V score	0.047	1.048	<.0001
Preindex healthcare costs	0.000	1.000	<.0001
ICU stay during initial hospitalization	–0.103	0.902	.1529
Surgery during initial hospitalization	0.051	1.052	.4194
Out-of-pocket costs (>$100 vs $0)	–0.470	0.625	.0080
Out-of-pocket costs (>$25 to $100 vs $0)	–0.239	0.788	.2654
Out-of-pocket costs (>$0 to $25 vs $0)	–0.149	0.861	.3166
Low-income subsidy/dual-eligible status	–0.145	0.865	.2622

Exp indicates exponentiated; ICU, intensive care unit.

$1280.93 lower for the fill group versus the reversal group. This clearly highlights the need to examine prescription drug costs and benefit design in the context of total healthcare costs.

The fill and reversal groups were similar with respect to the vast majority of their demographic and clinical characteristics, suggesting that an economic perspective might have factored in the decision to fill or reverse the linezolid prescription. Consistent with this interpretation is the significantly higher distribution of low-income subsidy/dual-eligibility status among members with a fill versus members with a reversal (42% vs 10%, respectively). Low-income subsidy/dual-eligible members are more likely to fill the prescription for oral linezolid as it is probable they will have low or no out-of-pocket costs. If economic factors did indeed influence the decision to fill or reverse the linezolid prescription, then strategies to reduce member out-of-pocket costs (eg, benefit design) for all health plan members could enable better member access, and in turn, reduce total healthcare costs.

Among members who reversed their prescriptions for oral linezolid, 27% went untreated and 73% filled prescriptions for alternative antibiotics in the 30 days after discharge. As to whether these other antibiotics could be considered alternative therapies to linezolid from a clinical point of view, the specific infection diagnosis and pathogen for each member, along with the specific antibiotic prescription filled postdischarge, would need to be taken into consideration on a case-by-case basis.

An examination of the literature to date regarding the cost-effectiveness of oral linezolid treatment versus comparators indicates that several formal cost-effectiveness analyses have been conducted (primarily vs vancomycin), with results suggesting linezolid was cost-effective in each of the analyses, particularly in the cases of shorter hospital length of stays.[16-20] As pathogens, disease states, additional indications for existing comparators, and emerging new comparators change the clinical and economic landscape of the treatments for SSTIs and pneumonia over time, additional research including cost-effectiveness analyses will need to be conducted.

One limitation of this study was its focus on members with an inpatient stay, which may not be generalizable to those prescribed oral linezolid in an ambulatory setting. In addition, the length of treatment for oral linezolid or other antibiotic therapies was not evaluated in this study and may have had an impact on postdischarge outcomes. Furthermore, the distinction between copay and coinsurance was made via visual inspection due to the fact that the medical claims did not contain an indicator for copay or coinsurance. Future work will need to more accurately reflect the distinction between copay and coinsurance.

Additionally, limitations common to studies using administrative claims data apply. These include lack of certain information in the database (eg, lab results, weight, health behavior information) and errors in claims coding. No causal inference can be ascertained from this study, as it was an observational study using retrospective claims data. Although multivariate regression modeling was used to reduce selection bias and strengthen the causal inference, this approach can only reduce bias caused by measured covariates. Finally,

because this study used data from Humana members only, the results may not be generalized to the general population. However, Humana is a large national health plan with members residing in a broad array of US regions.

CONCLUSIONS

This study found coinsurance benefit design was linked to higher out-of-pocket costs. These higher costs were associated with increased rates of reversals, which were associated with higher rates of rehospitalization and adjusted total healthcare costs among Medicare members prescribed oral linezolid after hospital discharge for skin or respiratory infections.

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eAppendix. *ICD-9-CM* Codes Consistent With Approved Linezolid Indications

ICD-9-CM Code	Infection Type[a]	Description
481	RTI	Pneumococcal pneumonia
482.3	RTI	Pneumonia due to streptococcus
482.4	RTI	Pneumonia due to staphylococcus
482.41	RTI	Methicillin-susceptible pneumonia *Staphylococcus aureus*
482.42	RTI	Methicillin-resistant pneumonia due to *Staphylococcus aureus*
997.31	RTI	Ventilator-associated pneumonia
567.31	SSTI	Psoas muscle abscess
675.10	SSTI	Abscess of breast associated with childbirth; unspecified as to episode of care
675.11	SSTI	Abscess of breast associated with childbirth; with or without antepartum condition
675.13	SSTI	Abscess of breast, antepartum
675.14	SSTI	Abscess of breast, postpartum
675.20	SSTI	Nonpurulent mastitis associated with childbirth; unspecified as to episode of care
675.23	SSTI	Nonpurulent mastitis, antepartum condition or complication
675.24	SSTI	Nonpurulent mastitis, postpartum condition or complication
681	SSTI	Cellulitis and abscess of finger and toe
681.0	SSTI	Cellulitis and abscess of finger
681.00	SSTI	Unspecified cellulitis and abscess of finger
681.01	SSTI	Felon
681.02	uSSTI	Onychia and paronychia of finger
681.1	SSTI	Cellulitis and abscess of toe
681.10	SSTI	Unspecified cellulitis and abscess of toe
681.11	uSSTI	Onychia and paronychia of toe
681.9	SSTI	Cellulitis and abscess of unspecified digit
682	SSTI	Other cellulitis and abscess
682.0	SSTI	Cellulitis and abscess of face
682.1	SSTI	Cellulitis and abscess of neck
682.2	SSTI	Cellulitis and abscess of trunk
682.3	SSTI	Cellulitis and abscess of upper arm and forearm
682.4	SSTI	Cellulitis and abscess of hand except fingers and thumb
682.5	SSTI	Cellulitis and abscess of buttock
682.6	SSTI	Cellulitis and abscess of leg except foot
682.7	SSTI	Cellulitis and abscess of foot except toes
682.8	SSTI	Cellulitis and abscess of other specified site
682.9	SSTI	Cellulitis and abscess of unspecified site
683	SSTI	Acute lymphadenitis
684	uSSTI	Impetigo
686	uSSTI	Other local infection skin and subcutaneous tissue
686.0	SSTI	Pyoderma
686.00	SSTI	Unspecified pyoderma
686.09	SSTI	Other pyoderma
686.8	SSTI	Other specified local infections of skin and subcutaneous tissue

(Continued)

eAppendix. *ICD-9-CM* Codes Consistent With Approved Linezolid Indications *(Continued)*

ICD-9-CM Code	Infection Type[a]	Description
686.9	SSTI	Unspecified local infection of skin and subcutaneous tissue
707.1	SSTI	Ulcer of lower limbs except pressure ulcer
707.10	SSTI	Ulcer of lower limb, unspecified
707.11	SSTI	Ulcer of thigh
707.12	SSTI	Ulcer of calf
707.13	SSTI	Ulcer of ankle
707.14	SSTI	Ulcer of heel and midfoot
707.15	SSTI	Ulcer of other part of foot
707.19	SSTI	Ulcer of other part of lower limb
728.0	SSTI	Infective myositis
998.5	SSTI	Postoperative infection not elsewhere classified
998.59	SSTI	Other postoperative infection
998.83	SSTI	Nonhealing surgical wound

ICD-9-CM indicates *International Classification of Diseases, Ninth Revision, Clinical Modification*; RTI, respiratory tract infection; SSTI, skin and soft tissue infection; uSSTI, uncomplicated skin and soft tissue infection.