# Medicare Part D Claims Rejections for Nursing Home Residents, 2006 to 2010

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he US government relies on private plans to administer the Medicare Part D prescription drug benefit, including the establishment of premiums, pharmacy networks, and formulary design. Within limits, Part D plans (PDPs) have flexibility to shape enrollees' drug use through levers such as coverage, cost-sharing, and utilization management techniques including prior authorization, step therapy, and quantity limits. The underlying expectation of this approach is that informed consumers will choose the plan that best suits their needs and that price competition across plans will optimize government payments for drugs.<sup>1</sup>

Although Part D includes special protections for nursing home residents, the program's administrative reliance on private plans and the emphasis on consumer choice is similar across institutional and community settings. In addition to nursing home residents having relatively high levels of medication use and physical and cognitive frailty as compared with other Medicare beneficiaries, a key difference in the nursing home setting is that almost two-thirds of long-stay residents are dually eligible for Medicare and Medicaid.<sup>2</sup> Part D's implementation shifted medication coverage for duals from Medicaid to Medicare and randomly assigned these individuals to plans with premiums at or below regional benchmark rates set by the Centers for Medicare & Medicaid Services (CMS). Under Part D, nursing homes and the pharmacies with which they contract no longer function under a state's Medicaid policies for dually eligible residents but instead work across multiple plans, each of which may have different formulary designs and administrative procedures.<sup>3</sup> The transition to Part D in the nursing home sector has not always been smooth, with early concerns about coverage adequacy and administrative burdens expressed by physicians, pharmacists, and administrators working in nursing homes.<sup>4,5</sup>

Little has been written about the extent of claims rejections or their clinical and administrative implications. One previous study using data on claims in rejected status at the end of 2006 found considerable

In this article Take-Away Points / p648 www.ajmc.com Full text and PDF Web exclusive eAppendices A-C variation in the reasons for rejection across medications and in the relative rejection rates across PDPs.<sup>6</sup> However, no published information exists about the overall rate at which Part D claims are rejected; whether these rates dif**Objectives:** Much has been written about trends in Medicare Part D formulary design and consumers' choice of plans, but little is known about the magnitude of claims rejections or their clinical and administrative implications. Our objective was to study the overall rate at which Part D claims are rejected, whether these rates differ across plans, drugs, and medication classes, and how these rejection rates and reasons have evolved over time.

Study Design and Methods: We performed descriptive analyses of data on paid and rejected Part D claims submitted by 1 large national longterm care pharmacy from 2006 to 2010. In each of the 5 study years, data included approximately 450,000 Medicare beneficiaries living in long-term care settings with approximately 4 million Part D drug claims. Claims rejection rates and reasons for rejection are tabulated for each study year at the plan, drug, and class levels.

**Results:** Nearly 1 in 6 drug claims was rejected during the first 5 years of the Medicare Part D program, and this rate has increased over time. Rejection rates and reasons for rejection varied substantially across drug products and Part D plans. Moreover, the reasons for denials evolved over our study period. Coverage has become less of a factor in claims rejections than it was initially and other formulary tools such as drug utilization review, quantity-related coverage limits, and prior authorization are increasingly used to deny claims.

**Conclusions:** Examining claims rejection rates can provide important supplemental information to assess plans' generosity of coverage and to identify potential areas of concern.

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For author information and disclosures, see end of text.

#### **Take-Away Points**

Our findings suggest that medication-specific and planwide rejection rates could be useful information, especially for policy makers and clinicians.

Policy makers could monitor rejection rates across plans to identify potential access problems for Medicare beneficiaries, to inform the Part D appeals process, and to make adjustments to regulatory guidance.

More specific to the nursing home population, policy makers could consider using rejection rates in decisions about plan assignment for dually eligible residents or which plans are eligible to serve dually eligible individuals.

Similarly, providers and pharmacies could monitor rejection data in establishing formularies and prescribing practices more generally.

fer across plans, drugs, and medication classes; and how these rejection rates and reasons have evolved over time. To address these questions, we examined data on paid and rejected Part D claims submitted by 1 large national long-term care pharmacy (LTCP) over the initial 5 years of Medicare Part D.

### METHODS

We obtained data on all paid and rejected Part D claims from Omnicare, Inc (Covington, Kentucky), the nation's largest long-term care pharmacy, operating in 47 states and serving approximately half of US nursing home residents. A claim is defined as a demand of payment for a particular drug, for a particular individual, on a particular date. Data include Part D claims for nursing home and assisted living residents, although more than 8 in 10 claims are estimated to be for nursing home residents. Data capture all claims filed in the month of March for each of 5 study years (2006-2010) (although we purposely avoided using data from January because of potential transition challenges at the beginning of the year, the choice of March was somewhat arbitrary. March 2010 also was the latest month available when the study began). All observations include the claim date; unique identifiers for residents and facilities; the National Drug Code (NDC) of the product; the plan to which the claim was submitted; and up to 3 reasons for denial of rejected claims. For ease of presentation, we group rejections into 3 broad categories (see eAppendix A, available at www.ajmc.com): 1) Product not covered—capturing instances where the product is not covered; 2) utilization management techniques-capturing instances where coverage applies only after plans approve necessary documentation from pharmacies and clinicians (prior authorization), where less expensive medications must first be tried and failed before more expensive medications are dispensed (step therapy), and instances where plans limit the number (or amount) of drugs covered within a certain time period (quantity limits and refill too soon); and 3) administrative rejections-including instances where claims have non-matched pharmacy or member identification numbers and missing/invalid information about

the prescriber, patient, or prescription itself. Importantly, administrative rejections can stem directly from coverage restrictions (eg, missing or inadequate justification for a "dispense as written" prescription order is the second-most prominent code in this category).

We define the total number of claims as the sum of paid claims and the subset of rejected claims that remain unpaid at the end of the month. We are able to

flag claims that were rejected multiple times (around 1 in 4 rejected claims) and claims that were rejected and then paid during the 1-month windows of the 5 study years. We count these flagged claims only once. We define the total number of rejections to include all rejected claims, regardless of whether the claim was paid subsequently. If a claim was rejected multiple times for the same reason(s), we count these as 1 rejection. If a claim was rejected multiple times for different reasons, we count each unique set of reasons separately. We are unable to observe the life cycle of claims outside our 1-month windows (eg, if a claim was rejected in March and paid in a subsequent month, we have no record of the later payment). To calculate the rejection rate, we divide the total number of rejections by the total number of submitted claims. We present the rejection rate by year, PDP, and product. We consider generic and brand formulations of the same molecule as distinct products for our analyses; similarly, we treat different formulations of the same molecule (eg, tablets, solutions, and extendedrelease formulations) separately. We exclude 248,026 rejections (7% of all rejections) that were rejected due to problems transmitting claims electronically, such as "host processing error" or "system unavailable." Based on conversations with the data provider, these rejections typically are resubmitted automatically, either to be resolved or rejected for another reason. We also exclude from our analyses the small number of claims that could not be matched to a drug name (1.6% of rejected claims; 0.1% of paid claims) and that were missing a rejection reason (0.02%).

### RESULTS

Our data include approximately 450,000 unique individuals and 4 million total claims in each of the 5 study years (Table 1). The overall rejection rate ranged from 14% to 19% over the 2006 to 2010 time frame, increasing slightly in recent years. The percent of rejections due to products not being covered declined considerably over the study period, from 21% of all rejections in 2006 to 10% in 2010. In contrast, rejections due to utilization management techniques such as prior au-

						Reasons for Reje	ection
Year	Number of Beneficiaries	Total Claims	Total Rejections	Rejection Rate	Product Not Covered	Utilization Management	Administrative Rejections
2006	452,447	3,763,985	642,196	17%	21%	33%	46%
2007	475,859	3,915,009	539,084	14%	14%	44%	42%
2008	453,574	3,768,178	594,401	16%	12%	49%	40%
2009	458,694	3,856,516	710,461	18%	11 %	46%	43%
2010	428,507	3,859,998	736,387	19%	10%	44%	46%

**Table 1.** Part D Claims Rejections in the Nursing Home Setting: Study Data and Trends Over Time, 2006 to 2010

Source: Authors' analysis of data provided by Omnicare, Inc, the nation's largest long-term care pharmacy. Data include all paid and rejected Part D claims from the month of March in each study year.

thorization, drug utilization review, and other coverage restrictions grew in prominence, from 33% of all rejections in 2006 to 44% in 2010. Within the utilization management category of rejections, the most prominent subcategories of rejections were "refill too soon" (43% of utilization management rejections), "Drug Utilization Review Reject Error" (30%), "plan limitations exceeded" (17%), and "prior authorization required" (8%) (eAppendix A). Administrative rejections were consistently high over the study period (approximately 43% of all rejections, on average). Specific codes comprising most administrative rejections were non-matched pharmacy numbers (31% of administrative rejections); missing/invalid information for requests to "dispense as written" (ie, requests to fill prescriptions for brand-name drugs, even though generic substitutes might be available) (8%); nonmatched plan member numbers (7%); and missing date of service (6%).

**Table 2** details product-level rejections for our most recent year of data (2010), with the top and bottom panels describing rejections for the most prescribed medications and medications with the highest rejection rates among drugs with at least 5000 claims, respectively. Among the 20 most prescribed drugs (13 of which are generics), the rejection rate was between 13% and 19%, with denials generally divided between administrative rejections and utilization management, and rarely due to lack of coverage. For the 20 most commonly rejected drugs (9 of which are generics), the rejection rates (23%-62%) and reasons for denial varied more widely. Lack of coverage factored more prominently into these rejections, especially for some alternate formulations. Administrative rejection codes accounted for more than half of denials for 10 out of 20 medications.

The **Figure** shows rejection rates over time for 7 classes commonly used in long-term care settings—antidepressants, angiotensin receptor blockers, atypical antipsychotics, cholinesterase inhibitors, long-acting opioids, nebulized inhalants, and osteoporosis medications (**eAppendix B** lists drugs by class). Other than the rejection rates for nebulized inhalants, which declined from 2008 to 2010, class-level rejection rates declined initially and then increased in subsequent years. Some increases were relatively large—for instance, after falling to a low of 16% in 2007, the rejection rate for long-acting opioids increased to 28% in 2010. Rejection reasons varied across classes (see eAppendix C for details).

Table 3 displays rejection rates and the reasons across plans with higher claims volume in 2010. If a company had multiple PDPs nationwide, the information is aggregated across these plans. The overall rejection rates varied (6%-30%), as did the distribution of rejection reasons. Among plans with higher rejection rates, administrative rejections were relatively prominent. The 3 plans with the highest proportion of rejections for administrative reasons (74%, 68%, and 65%) were among the 3 plans with highest rejection rates overall (30%, 24%, and 29%, respectively). Translated to an administrative rejection rate (overall rejection rate  $\times$  proportion of rejections for administrative reasons), the rate at which claims were rejected because of administrative reasons generally was between 2% and 9% of claims (not shown). Relatively high rates of administrative rejections arose in smaller and larger plans alike. The rates of claims rejections in the other 2 categories did not convey anything consistent about plans' overall rejection rates.

## DISCUSSION

Over the initial 5 years of Medicare Part D, nearly 1 in 6 drug claims for beneficiaries living in nursing homes and other long-term care settings was rejected. Although one might have expected the rejection rate to decline over time after the initial transition to the program and as pharmacies and clinicians grew more accustomed to working across private plans, this has not occurred. After an initial decline, the rejection rate has increased slightly each year. At the same time, reasons for denials have evolved considerably. Lack of coverage has become less of a factor in claims rejections than it was initially; increasingly, other formulary tools such as drug

### POLICY

#### **Table 2.** Part D Claims Rejections in the Nursing Home Setting, by Drug (2010)

				Proportion of Rejections in Each Cate		Each Category
Drugs With Most Submitted Claims	Total Claims	Total Rejects	Rejection Rate	Product Not Covered	Utilization Management	Administrative Rejections
Furosemide tablets	130,266	17,909	14%	0%	54%	46%
Warfarin sodium tablets	114,642	21,563	19%	0%	68%	32%
Omeprazole capsules extended release	114,211	17,206	15%	3%	48%	48%
Levothyroxine sodium tablets	112,796	14,904	13%	0%	44%	56%
Simvastatin tablets	107,584	13,983	13%	0%	46%	53%
Lisinopril tablets	102,540	12,995	13%	0%	43%	57%
Aricept tablets <sup>a</sup>	88,376	10,830	12%	0%	44%	55%
Metoprolol tartrate tablets	80,082	10,663	13%	0%	53%	47%
Hydrocodone bitartrate and acetaminophen tablets	74,248	11,597	16%	0%	62%	37%
Amlodipine besylate tablets	66,494	8778	13%	0%	47%	53%
Namenda tablets <sup>a</sup>	64,225	8847	14%	0%	49%	51%
Seroquel tablets <sup>a</sup>	61,708	11,825	19%	0%	61%	39%
Citalopram tablets	52,595	7341	14%	0%	54%	46%
Klor-Con extended-release tablets <sup>a</sup>	49,715	6820	14%	7%	44%	49%
Mirtazapine tablets	47,542	6060	13%	0%	55%	45%
Risperidone tablets	46,897	8643	18%	0%	55%	45%
Sertraline hydrochloride tablets	46,216	7278	16%	0%	50%	50%
Lexapro tablets <sup>a</sup>	44,524	6553	15%	5%	47%	48%
Plavix tablets <sup>a</sup>	39,735	5070	13%	0%	48%	51%
Lantus injection <sup>a</sup>	36,675	5298	14%	1%	71%	28%
Percent of all 2010 claims/rejections	38%	29%				
Drugs With Highest Rejection Rates (More Than 5000 Claims)	Total Claims	Total Rejects	Rejection Rate	Product Not Covered	Utilization Management	Administrative Rejections
Flomax capsules <sup>a</sup>	8766	5414	62%	3%	170/	000/
			02/0	0,0	17 70	80%
Procrit injection <sup>a</sup>	5418	2996	55%	9%	80%	80% 11%
Procrit injection <sup>a</sup> Pantoprazole sodium tablets extended release	5418 9355	2996 4565	55% 49%	9% 51%	80% 23%	80% 11% 26%
Procrit injection <sup>a</sup> Pantoprazole sodium tablets extended release Ventolin inhalation aerosol <sup>a</sup>	5418 9355 5067	2996 4565 2049	55% 49% 40%	9% 51% 18%	80% 23% 20%	11 % 26 % 62 %
Procrit injection <sup>a</sup> Pantoprazole sodium tablets extended release Ventolin inhalation aerosol <sup>a</sup> Cozaar tablets <sup>a</sup>	5418 9355 5067 5354	2996 4565 2049 1917	55% 49% 40% 36%	9% 51% 18% 21%	80% 23% 20% 26%	80% 11% 26% 62% 52%
Procrit injection <sup>a</sup> Pantoprazole sodium tablets extended release Ventolin inhalation aerosol <sup>a</sup> Cozaar tablets <sup>a</sup> Fluticasone propionate nasal spray	5418 9355 5067 5354 13,602	2996 4565 2049 1917 4812	55% 49% 40% 36% 35%	9% 51% 18% 21% 0%	80% 23% 20% 26% 19%	80% 11% 26% 62% 52% 80%
Procrit injection <sup>a</sup> Pantoprazole sodium tablets extended release Ventolin inhalation aerosol <sup>a</sup> Cozaar tablets <sup>a</sup> Fluticasone propionate nasal spray Ipratropium bromide albuterol sulfate inhalation solution	5418 9355 5067 5354 13,602 15,652	2996 4565 2049 1917 4812 5518	55% 49% 40% 36% 35% 35%	9% 51% 18% 21% 0% 25%	17 % 80% 23% 20% 26% 19% 50%	80% 11% 26% 62% 52% 80% 25%
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Procrit injection <sup>a</sup> Pantoprazole sodium tablets extended release Ventolin inhalation aerosol <sup>a</sup> Cozaar tablets <sup>a</sup> Fluticasone propionate nasal spray Ipratropium bromide albuterol sulfate inhalation solution Xalatan opthalmic solution <sup>a</sup> Potassium chloride oral solution Oxycodone and acetaminophen tablets Oxycodone hydrochloride tablets Morphine sulfate tablets extended release Fentanyl transdermal patch Actonel tablets <sup>a</sup> Lidoderm patch <sup>a</sup> Nexium extended-release capsules <sup>a</sup> Propoxyphene napsylate and acetaminophen tablets Abilify tablets <sup>a</sup>	5418 9355 5067 5354 13,602 15,652 7271 5771 15,012 5874 6200 25,022 8981 15,351 6789 5425 8891 14,778 5609	2996 4565 2049 1917 4812 5518 2517 1869 4857 1825 1832 7154 2348 3948 1718 1347 2144 3426 1272	55% 49% 40% 36% 35% 35% 32% 32% 32% 31% 30% 29% 26% 26% 26% 25% 25% 25% 24% 23%	9% 51% 18% 21% 0% 25% 3% 76% 1% 2% 1% 2% 1% 2% 1% 1% 24% 0% 11% 14% 19%	17 %         80%         23%         20%         26%         19%         50%         40%         11%         37%         40%         41%         41%         59%         58%	80% 11% 26% 62% 52% 80% 25% 57% 14% 63% 53% 55% 23% 41% 46% 40% 41% 42%

<sup>a</sup>Indicates medication is a brand name drug. Source: Authors' analysis of data provided by Omnicare, Inc, the nation's largest long-term care pharmacy. Data include all paid and rejected Part D claims from the month of March in each study year.



**Figure**. Part D Rejection Rates in the Nursing Home Setting by Drug Class

ARB indicates angiotensin receptor blocker.

Source: Authors' analysis of data provided by Omnicare, Inc, the nation's largest long-term care pharmacy. Data include all paid and rejected Part D claims from the month of March in each study year.

utilization review, quantity-related coverage limits, and prior authorization are used to deny claims. Although these results are consistent with broader trends concerning PDP formularies, somewhat more surprising is the persistence of administrative claims rejections throughout the study period, a feature that likely reflects the complexity of working across multiple plans and policies in a given year, as well as changes in coverage policies over time.

Not surprisingly, rejection rates and reasons varied considerably across products. Medications most commonly used by nursing home residents generally have below average denial rates (around 1 in 7 claims), with coverage issues rarely noted. Given the relatively low cost of many of these drugs (9 out of 10 most commonly used drugs are generics), these features are unsurprising. Among drugs with the highest rejection rates, explanations for denials are complex and vary across products, which include generics, brand drugs with generic alternatives, and brand drugs without generic alternatives.

Among the most rejected generics, half of the denials for pantoprazole sodium extended release tablet (a proton pump inhibitor for conditions such as gastroesophageal reflux disease) were due to the product not being covered. The primary reason for rejections of fluticasone propionate nasal spray (for asthma and allergy symptoms) stemmed from claims having missing/invalid information about days-supply, a problem also affecting other solutions and inhalation products. Three-fourths of rejections for potassium chloride solution (for nutritional deficiencies) were due to non-coverage, a feature likely reflecting a CMS ruling that the formulation did not meet Part D coverage requirements and the subsequent shift by PDPs to reimburse only non-liquid formulations of the drug.

Denials for brand name drugs with generic equivalents likely reflect PDPs' efforts to promote use of cheaper generic alternatives. The high rejection rate for Flomax (tamsulosin) (for symptoms of an enlarged prostate) largely stemmed from claims having missing/invalid "dispense as written" information, an issue that presumably arose following the availability of generic tamsulosin in early 2010. Among the handful of brand drugs without generic equivalents, an example worth highlighting is Procrit (epoetin alfa), an expensive blood modifier used to treat anemia due to chronic renal failure and other select conditions. More than three-fourths of Procrit's rejections were due to prior authorization issues, something not unexpected given the drug's high cost and potentially harmful side effects.<sup>7</sup>

A striking feature of our product-level findings is that 6 out of 20 medications with the highest rejection rates in 2010 are used to treat pain (oxycodone/acetaminophen, oxycodone hydrochloride, morphine sulfate extended release, fentanyl patch, propoxyphene napsylate/acetaminophen, and Lidoderm (lidocaine). With the exception of propoxyphene napsylate/acetaminophen (an opioid combination of questionable effectiveness and safety in older adults<sup>8,9</sup>) and Lidoderm (an expensive topical anesthetic patch used to treat pain from shingles and other sources of neuropathic pain), denials for pain medications arise primarily from administrative rejections and utilization management techniques. An illustrative example is that nearly 1 in 3 claims was denied for the fentanyl patch in 2010—a

### POLICY

#### **Table 3.** Part D Claims Rejections in the Nursing Home Setting, Across Plans (2010)

				Proportion	of Rejections in Ea	ach Category
Plans <sup>ª</sup> With Most Total Claims	Total Claims	Total Rejections	Rejection Rate	Product Not Covered	Utilization Management	Administrative Rejections
Plan A	1,055,608	205,069	19%	11.0%	58.8%	30.2%
Plan B	981,127	230,817	24%	5.2%	26.5%	68.3%
Plan C	338,268	51,610	15%	12.0%	65.7%	22.3%
Plan D	241,402	39,677	16%	10.5%	34.5%	55.0%
Plan E	158,545	23,373	15%	10.4%	60.8%	28.7%
Plan F	156,522	26,758	17%	13.4%	42.5%	44.1%
Plan G	140,699	15,994	11 %	13.7%	54.5%	31.8%
Plan H	130,105	13,109	10%	13.0%	58.2%	28.9%
Plan I	119,497	30,275	25%	17.8%	50.9%	31.3%
Plan J	105,496	31,920	30%	3.6%	22.7%	73.7%
Plan K	78,468	10,799	14%	31.5%	49.4%	19.2%
Plan L	74,093	10,033	14%	19.4%	51.2%	29.4%
Plan M	42,429	7082	17%	8.6%	39.2%	52.2%
Plan N	40,827	2423	6%	22.5%	30.6%	46.8%
Plan O	30,925	5195	17%	36.5%	40.6%	22.9%
Plan P	25,691	4235	16%	23.0%	50.5%	26.4%
Plan Q	23,775	3190	13%	41.4%	17.3%	41.3%
Plan R	15,948	4693	29%	18.0%	17.0%	65.0%
Plan S	13,798	2450	18%	28.7%	30.2%	41.1%
Plan T	12,074	3528	29%	5.2%	52.4%	42.4%
Plan U	10,262	1179	11 %	0.9%	82.3%	16.8%

<sup>a</sup>If company had multiple Part D plans nationwide, the information is aggregated across these plans.

Source: Authors' analysis of data provided by Omnicare, Inc, the nation's largest long-term care pharmacy. Data include all paid and rejected Part D claims from the month of March in each study year.

rate nearly double its 2006 level; and administrative rejections and utilization management accounted for almost all of these rejections. Although rejection rates for pain medications could reflect their considerable abuse and diversion potential, concerns must be weighed against the need for timely access to effective medications for individuals living with chronic pain.<sup>10,11</sup>

Rejection rates and reasons also vary considerably across PDPs. In the context of a facility's residents being enrolled in multiple plans, this variation presents administrative challenges for facility and pharmacy staff and may undermine the predictability of coverage across residents with similar conditions. Although it is difficult to convey a clear, concise story in the context of the PDP rejection rates, plans' higher administrative rejection rates generally imply higher rejections relates to continuing challenges that providers and pharmacies face in updating residents' Medicaid eligibility status, delays which can result in enrollment gaps and incorrectly collected copayments.<sup>5</sup> Nonetheless, the cross-plan variation in the extent to which these issues lead to rejected claims implies that there may be room for improvement at plans with especially high administrative rejection rates.

It is unclear what the optimal or expected rejection rate should be in Part D generally or in the long-term care setting specifically. Besides administrative errors that must be corrected before payment, plans have legitimate reasons to deny claims; and the optimal rejection rate is not zero. Prior authorization, for instance, could add valuable safeguards when prescribing is of questionable efficacy or appropriateness (eg, in the historically problematic area of psychotropic drug use among elderly nursing home residents<sup>12-14</sup>). Similarly, step therapy edits could push clinicians to prescribe less costly medications that are clinically similar or, in the case of brand-to-generic comparisons, equivalent. Nonetheless, use of these strategies creates a tension between the push to lower costs and the importance of ensuring access to needed medications.

#### Medicare Part D Claims Rejections

The clinical impact of claims rejections on long-term care residents is unclear. We do not have information about beneficiaries' diagnoses or health outcomes and are unable to assess the potential impact of denials on individuals' health or on the overall appropriateness of prescribing. Similarly, we do not have information about the absolute or relative administrative burden or costs associated with rejected claims. It is likely that some denials are rectified relatively easily, while others require more coordinated effort. Because of the limited time frame (1 month each year) for which we have data, we are unable to estimate the extent to which individuals switch or discontinue medications because of claims denials (or, conversely, obtain their needed medication in the end). Prescribing behavior also may adjust to PDPs' formularies and administrative practices (eg, if clinicians reduce prescribing a particular medication because it is difficult to obtain), something we are unable to observe. Important context for these points is that regulations require that nursing homes adhere to residents' clinical care plans regardless of financial coverage, meaning that clinicians must either work within plans' extant formulary constraints or leave facilities and/or pharmacies to shoulder the financial cost of medications. Finally, although the same PDPs serve individuals across institutional and community-based settings, our data are from individuals living in long-term care settings and come from a single (albeit very large) LTCP. Thus, generalizing our findings to the Part D program as a whole or even to the entire long-term care sector should be done with caution.

Nonetheless, our results have several implications for policy. Our findings suggest that medication-specific and planwide rejection rates could be useful information for policy makers, beneficiaries, and clinicians. Policy makers could monitor and possibly report rejection rates across plans to identify potential access problems for Medicare beneficiaries, to inform the Part D appeals process, and even to make adjustments to regulatory guidance if necessary. Given uncertainty about the optimal or appropriate rejection rate in Part D, related oversight likely would focus on identifying outliers at the plan, product, or class levels for further investigation. For example, CMS currently requires that plans cover at least 1 formulation of all medications in selected medication classes.<sup>15</sup> CMS could consider rejection rates in decisions about whether to incorporate special protections around formulary coverage or the use of utilization management for these or other drugs. Although beneficiaries could use rejection rates in evaluating plans (eg, to compare plans with comparable coverage on drugs of interest), previous research suggests consumers already are overwhelmed by available information and could benefit from having fewer, more targeted data points.<sup>16</sup> More specific to the nursing home population, policy makers could consider using rejection rates in decisions about plan assignment of dually eligible residents (eg, not assigning individuals to plans where medication access looks especially problematic) or even about which plans are eligible to serve dually eligible individuals altogether. Similarly, providers and the pharmacies they work with could monitor rejection data in establishing formularies and prescribing practices more generally.

Throughout the brief history of the Medicare Part D program, comparing generosity of coverage across private PDPs has been a key point of interest for consumers, policy makers, and researchers.<sup>17</sup> Claims rejections have been an unobserved feature of these comparisons to date. Our research shows that examining rejection rates across plans and medications can provide important supplemental information to assess plans' generosity of coverage and to identify potential areas of concern. Going forward, information about claims rejections should be more systematically monitored and analyzed for oversight purposes, not only to identify administrative challenges that arise in the Part D marketplace but also to ensure the program is working well for Medicare beneficiaries as a whole.

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## eAppendix A. Part D Claims Rejections in the Nursing Home Setting, Reasons for Rejection (2006-2010)

	Number of	Dorsont of All	Percent of Poinctions in
	Rejections	Rejections	Category
Administrative Rejections	- <b>J</b>	. <b>.</b>	
Non-Matched Pharmacy Number	438,533	13.6%	31.1%
M/I Dispense As Written (DAW)/Product Selection Code	112,135	3.5%	8.0%
Non-Matched Cardholder ID	102,656	3.2%	7.3%
M/I Date of Service	80,207	2.5%	5.7%
Claim Is Post-Dated	80,190	2.5%	5.7%
Filled After Coverage Terminated	68,072	2.1%	4.8%
M/I Professional Service Code	56,346	1.7%	4.0%
Patient Is Not Covered	49,036	1.5%	3.5%
M/I Birth Date	46,522	1.4%	3.3%
Duplicate Paid/Captured Claim	41,156	1.3%	2.9%
Claim Not Processed	34,256	1.1%	2.4%
M/I Quantity Dispensed	29,589	0.9%	2.1%
M/I Days Supply	28,045	0.9%	2.0%
M/I Cardholder ID Number	24,117	0.7%	1.7%
M/I Patient Relationship Code	23,958	0.7%	1.7%
Submit Bill To Other Processor Or Primary Payer	19,193	0.6%	1.4%
M/I Prescriber ID	14,262	0.4%	1.0%
Discontinued Product/Service ID Number	14,098	0.4%	1.0%
Reversal Not Processed	13,969	0.4%	1.0%
M/I Prescriber ID Qualifier	13,670	0.4%	1.0%
M/I Patient Gender Code	12,568	0.4%	0.9%
M/I Other Coverage Cod	9,728	0.3%	0.7%
Filled After Coverage Expired	8,239	0.3%	0.6%
M/I Result Of Service Code	6,786	0.2%	0.5%
Claim Too Old	5,518	0.2%	0.4%
M/I Group Number	5,466	0.2%	0.4%
M/I Date Prescription Written	5,428	0.2%	0.4%
M/I Processor Control Number	5,125	0.2%	0.4%
M/I Reason For Service Code	5,119	0.2%	0.4%
Non-Matched Product/Service ID Number	5,035	0.2%	0.4%

M/I COB/Other Payments Segment	4,926	0.2%	0.3%
Pharmacy Not Contracted With Plan On Date Of Service	4,836	0.2%	0.3%
M/I Prior Authorization Type Code	4,205	0.1%	0.3%
M/I Prior Authorization Number Submitted	3,574	0.1%	0.3%
Non-Matched Prescriber ID	2.760	0.1%	0.2%
Non-Matched Group ID	2.542	0.1%	0.2%
M/I Percentage Sales Tax Basis Submitted	1,876	0.1%	0.1%
Filled Before Coverage Effective	1.853	0.1%	0.1%
Prescriber Is Not Covered	1,805	0.1%	0.1%
M/I Bin	1.748	0.1%	0.1%
M/I Patient Zip/Postal Zone	1.491	0.0%	0.1%
M/I Product/Service ID	1.463	0.0%	0.1%
M/I Usual And Customary Charge	1.366	0.0%	0.1%
M/I Patient ID	1.297	0.0%	0.1%
Claim Has Not Been Paid/Captured	1.181	0.0%	0.1%
M/I Patient Location	1.145	0.0%	0.1%
M/I Person Code	1,145	0.0%	0.1%
M/I Coordination Of Benefits/Other Payments Count	668	0.0%	0.0%
M/I Prescription Origin Code	636	0.0%	0.0%
Date Written Is After Date Filled	600	0.0%	0.0%
M/I Pharmacy Number	535	0.0%	0.0%
M/I Other Payer Amount Paid Qualifier	498	0.0%	0.0%
M/I Patient Last Name	493	0.0%	0.0%
M/I Other Payer Reject Count	452	0.0%	0.0%
M/I Diagnosis Code Qualifier	411	0.0%	0.0%
M/I Compound Product ID	408	0.0%	0.0%
M/I Other Payer Date	399	0.0%	0.0%
M/I DUR/PPS Segment	377	0.0%	0.0%
M/I Software Vendor/Certification ID	369	0.0%	0.0%
M/I Ingredient Cost Submitted	327	0.0%	0.0%
M/I Other Payer Amount Paid	319	0.0%	0.0%
M/I Compound Segment	264	0.0%	0.0%
M/I Insurance Segment	247	0.0%	0.0%
M/I Percentage Sales Tax Amount Submitted	239	0.0%	0.0%
Non-Matched Product Package Size	234	0.0%	0.0%
Value In Gross Amount Due Does Not Follow Pricing Formulae	228	0.0%	0.0%

M/I Diagnosis Code	219	0.0%	0.0%
Other Carrier Payment Meets Or Exceeds Payable	214	0.0%	0.0%
Syntax Error	203	0.0%	0.0%
M/I Professional Service Fee Submitted	200	0.0%	0.0%
M/I Patient ID Qualifier	194	0.0%	0.0%
M/I Compound Code	186	0.0%	0.0%
M/I Other Paver Amount Paid Count	185	0.0%	0.0%
Non-Matched Person Code	180	0.0%	0.0%
M/I Submission Clarification Code	164	0.0%	0.0%
M/I Prescription/Service Reference Number	134	0.0%	0.0%
M/I Product/Service ID Qualifier	127	0.0%	0.0%
M/I Patient Paid Amount Submitted	121	0.0%	0.0%
M/I Other Payer ID	111	0.0%	0.0%
M/I Other Payer ID Qualifier	109	0.0%	0.0%
M/I Fill Number	99	0.0%	0.0%
M/I Primary Care Provider ID	92	0.0%	0.0%
M/I Number Refills Authorized	69	0.0%	0.0%
M/I Patient Street Address	69	0.0%	0.0%
M/I Intermediary Authorization Type ID	64	0.0%	0.0%
M/I Cardholder Last Name	62	0.0%	0.0%
M/I Percentage Sales Tax Rate Submitted	61	0.0%	0.0%
M/I Other Amount Claimed Submitted Count	52	0.0%	0.0%
M/I Other Payer Reject Code	52	0.0%	0.0%
M/I Metric Quantity	51	0.0%	0.0%
M/I Other Payer Coverage Type	51	0.0%	0.0%
M/I Unit Of Measure	51	0.0%	0.0%
M/I Eligibility Clarification Code	36	0.0%	0.0%
Requires Manual Claim	29	0.0%	0.0%
M/I Compound Ingredient Basis Of Cost Determination	25	0.0%	0.0%
M/I Segment Identification	25	0.0%	0.0%
M/I Service Provider ID Qualifier	23	0.0%	0.0%
M/I Other Amount Claimed Submitted Qualifier	22	0.0%	0.0%
M/I Prescription/Service Reference Number Qualifier	21	0.0%	0.0%
M/I Patient First Name	19	0.0%	0.0%
M/I Patient City Address	17	0.0%	0.0%
Other Payer Reject Count Does Not Match Number Of Repetitions	16	0.0%	0.0%

Prescription/Service Reference Number/Time Limit Exceeded	16	0.0%	0.0%
Drug-Diagnosis Mismatch	14	0.0%	0.0%
M/I Gross Amount Due	14	0.0%	0.0%
M/I Plan ID	14	0.0%	0.0%
QMB (Qualified Medicare Beneficiary)-Bill Medicare	14	0.0%	0.0%
M/I Basis Of Cost	12	0.0%	0.0%
M/I Level Of Service	11	0.0%	0.0%
M/I Compound Ingredient Component Count	10	0.0%	0.0%
M/I DUR Co-Agent ID Qualifier	8	0.0%	0.0%
M/I Quantity Prescribed	8	0.0%	0.0%
M/I Compound Dispensing Unit Form Indicator	7	0.0%	0.0%
M/I Other Amount Claimed Submitted	7	0.0%	0.0%
M/I Unit Dose Indicator	7	0.0%	0.0%
Mandatory Data Elements Must Occur Before Optional Data Elements In A Segment	7	0.0%	0.0%
M/I DUR/PPS Level Of Effort	6	0.0%	0.0%
M/I Transaction Code	6	0.0%	0.0%
Patient Age Exceeds Maximum Age	6	0.0%	0.0%
Primary Prescriber Is Not Covered	6	0.0%	0.0%
M/I Patient State/Province Address	5	0.0%	0.0%
Billing Provider Not Eligible To Bill This Claim Type	4	0.0%	0.0%
Compound Ingredient Component Count Does Not Match Number Of Repetitions	4	0.0%	0.0%
M/I Basis Of Cost Determination	4	0.0%	0.0%
M/I DUR/PPS Code Counter	4	0.0%	0.0%
M/I Prescriber Last Name	4	0.0%	0.0%
M/I Intermediary Authorization ID	3	0.0%	0.0%
M/I Primary Care Provider ID Qualifier	3	0.0%	0.0%
Coordination Of Benefits/Other Payments Count Does Not Match Number Of Repetitions	2	0.0%	0.0%
M/I Compound Dosage Form Description Code	2	0.0%	0.0%
M/I DUR Co-Agent ID	2	0.0%	0.0%
M/I Patient Phone Number	2	0.0%	0.0%
M/I Quantity Intended To Be Dispensed	2	0.0%	0.0%
M/I Version Number	2	0.0%	0.0%
M/I Authorization Number	1	0.0%	0.0%
M/I Compound Ingredient Quantity	1	0.0%	0.0%
M/I Date Of Injury	1	0.0%	0.0%
M/I Dispensing Fee Submitted	1	0.0%	0.0%

M/I Pricing Segment	1	0.0%	0.0%
M/I Prior Authorization Segment	1	0.0%	0.0%
M/I Request Type	1	0.0%	0.0%
M/I Sales Tax	1	0.0%	0.0%
Total	1,409,516		
Utilization Management			
Refill Too Soon	602,765	18.7%	43.4%
DUR Reject Error	420,940	13.1%	30.3%
Plan Limitations Exceeded	240,192	7.5%	17.3%
Prior Authorization Required	116,333	3.6%	8.4%
Days Supply Limitation For Product/Service	4,562	0.1%	0.3%
Cost Exceeds Maximum	2,189	0.1%	0.2%
Recipient Locked In	267	0.0%	0.0%
Prior Authorization Denied	266	0.0%	0.0%
Refills Are Not Covered	126	0.0%	0.0%
Claim Submitted Does Not Match Prior Authorization	62	0.0%	0.0%
Product/Service Not Appropriate For This Location	10	0.0%	0.0%
Generic Drug Required	5	0.0%	0.0%
Total	1,387,717		
Product Not Covered			
Product/Service Not Covered	422,886	13.1%	99.6%
Product/Service Not Covered For Patient Age	1,452	0.0%	0.3%
Product/Service Not Covered For Patient Gender	320	0.0%	0.1%
Total	424,658		
[Missing rejection reason]	638	0.0%	

COB indicates coordination of benefits; ID, identification; M/I, missing/invalid; PPS, prospective payment system; QMB, qualified Medicare beneficiary.

Source: Authors' analysis of data provided by Omnicare, Inc, the nation's largest long-term care pharmacy. Data include all paid and rejected Part D claims from the month of March in each study year.

## eAppendix B. Part D Claims Rejections in the Nursing Home Setting, Drugs in 7 Classes of Interest (2006-2010)

Class	Drug Name
ANTIDEPRESSANTS	AMITRIPTYLINE HYDROCHLORIDE TABLETS
ANTIDEPRESSANTS	AMOXAPINE TABLETS
ANTIDEPRESSANTS	ANAFRANIL CAPSULES
ANTIDEPRESSANTS	APLENZIN TABLETS EXTENDED RELEASE
ANTIDEPRESSANTS	AVENTYL HYDROCHLORIDE ORAL SOLUTION
ANTIDEPRESSANTS	BUDEPRION TABLETS EXTENDED RELEASE
ANTIDEPRESSANTS	BUDEPRION TABLETS XL
ANTIDEPRESSANTS	BUDEPRION TABLETS XL EXTENDED RELEASE
ANTIDEPRESSANTS	BUPROBAN TABLETS EXTENDED RELEASE
ANTIDEPRESSANTS	BUPROPION HYDROCHLORIDE TABLETS
ANTIDEPRESSANTS	BUPROPION HYDROCHLORIDE TABLETS EXTENDED RELEASE
ANTIDEPRESSANTS	CELEXA ORAL SOLUTION
ANTIDEPRESSANTS	CELEXA TABLETS
ANTIDEPRESSANTS	CITALOPRAM HYDROBROMIDE ORAL SOLUTION
ANTIDEPRESSANTS	CITALOPRAM TABLETS
ANTIDEPRESSANTS	CLOMIPRAMINE HYDROCHLORIDE CAPSULES
ANTIDEPRESSANTS	CYMBALTA CAPSULES EXTENDED RELEASE
ANTIDEPRESSANTS	DESIPRAMINE HYDROCHLORIDE TABLETS
ANTIDEPRESSANTS	DESYREL TABLETS
ANTIDEPRESSANTS	EFFEXOR CAPSULES EXTENDED RELEASE
ANTIDEPRESSANTS	EFFEXOR TABLETS
ANTIDEPRESSANTS	ELAVIL TABLETS
ANTIDEPRESSANTS	EMSAM PATCH/DISC
ANTIDEPRESSANTS	EMSAM TRANSDERMAL SYSTEM PATCHES
ANTIDEPRESSANTS	FLUOXETINE CAPSULES
ANTIDEPRESSANTS	FLUOXETINE HYDROCHLORIDE TABLETS
ANTIDEPRESSANTS	FLUOXETINE ORAL SOLUTION
ANTIDEPRESSANTS	FLUVOXAMINE MALEATE TABLETS
ANTIDEPRESSANTS	GABITRIL TIAGABINE HYDROCHLORIDE TABLETS
ANTIDEPRESSANTS	IMIPRAMINE HYDROCHLORIDE TABLETS
ANTIDEPRESSANTS	IMIPRAMINE PAMOATE CAPSULES
ANTIDEPRESSANTS	LEXAPRO SOLUTION
ANTIDEPRESSANTS	LEXAPRO TABLETS

ANTIDEPRESSANTS	LUVOX CAPSULES EXTENDED RELEASE
ANTIDEPRESSANTS	LUVOX TABLETS
ANTIDEPRESSANTS	MAPROTILINE HYDROCHLORIDE TABLETS
ANTIDEPRESSANTS	MARPLAN TABLETS
ANTIDEPRESSANTS	MIRTAZAPINE DISSOLVABLE TABLETS
ANTIDEPRESSANTS	MIRTAZAPINE TABLETS
ANTIDEPRESSANTS	MIRTAZAPINE TABLETS ORALLY DISINTEGRATING
ANTIDEPRESSANTS	NARDIL TABLETS
ANTIDEPRESSANTS	NEFAZODONE HYDROCHLORIDE TABLETS
ANTIDEPRESSANTS	NORPRAMIN TABLETS
ANTIDEPRESSANTS	NORTRIPTYL HYDROCHLORIDE CAPSULES
ANTIDEPRESSANTS	NORTRIPTYLINE HYDROCHLORIDE CAPSULES
ANTIDEPRESSANTS	NORTRIPTYLINE HYDROCHLORIDE ORAL SOLUTION
ANTIDEPRESSANTS	PAMELOR
ANTIDEPRESSANTS	PAMELOR CAPSULES
ANTIDEPRESSANTS	PAMELOR ORAL SOLUTION
ANTIDEPRESSANTS	PARNATE TABLETS
ANTIDEPRESSANTS	PAROXETINE HYDROCHLORIDE
ANTIDEPRESSANTS	PAROXETINE HYDROCHLORIDE ORAL SOLUTION
ANTIDEPRESSANTS	PAROXETINE HYDROCHLORIDE TABLETS
ANTIDEPRESSANTS	PAROXETINE HYDROCHLORIDE TABLETS EXTENDED RELEASE
ANTIDEPRESSANTS	PAXIL ORAL SOLUTION
ANTIDEPRESSANTS	PAXIL TABLETS
ANTIDEPRESSANTS	PAXIL TABLETS EXTENDED RELEASE
ANTIDEPRESSANTS	PEXEVA TABLETS
ANTIDEPRESSANTS	PRISTIQ TABLETS EXTENDED RELEASE
ANTIDEPRESSANTS	PROTRIPTYLINE HYDROCHLORIDE TABLETS
ANTIDEPRESSANTS	PROZAC CAPSULES
ANTIDEPRESSANTS	PROZAC ORAL SOLUTION
ANTIDEPRESSANTS	PROZAC TABLETS
ANTIDEPRESSANTS	PROZAC WEEKLY CAPSULES
ANTIDEPRESSANTS	REMERON SOLTAB TABLETS ORALLY DISINTEGRATING
ANTIDEPRESSANTS	REMERON TABLETS
ANTIDEPRESSANTS	SARAFEM TABLETS
ANTIDEPRESSANTS	SAVELLA TABLETS
ANTIDEPRESSANTS	SAVELLA TABLETS TITRATION PACK KIT

ANTIDEPRESSANTS	SERTRALINE HYDROCHLORIDE
ANTIDEPRESSANTS	SERTRALINE HYDROCHLORIDE ORAL CONCENTRATE
ANTIDEPRESSANTS	SERTRALINE HYDROCHLORIDE ORAL SOLUTION
ANTIDEPRESSANTS	SERTRALINE HYDROCHLORIDE TABLETS
ANTIDEPRESSANTS	SERZONE TABLETS
ANTIDEPRESSANTS	SURMONTIL CAPSULES
ANTIDEPRESSANTS	SYMBYAX CAPSULES
ANTIDEPRESSANTS	TOFRANIL PM CAPSULES
ANTIDEPRESSANTS	TOFRANIL TABLETS
ANTIDEPRESSANTS	TRANYLCYPROMINE SULFATE TABLETS
ANTIDEPRESSANTS	TRAZODONE HYDROCHLORIDE TABLETS
ANTIDEPRESSANTS	TRAZODONE TABLETS
ANTIDEPRESSANTS	TRIMIPRAMINE MALEATE CAPSULES
ANTIDEPRESSANTS	VANATRIP TABLETS
ANTIDEPRESSANTS	VENLAFAXINE HYDROCHLORIDE TABLETS
ANTIDEPRESSANTS	VENLAFAXINE HYDROCHLORIDE TABLETS EXTENDED RELEASE
ANTIDEPRESSANTS	VIVACTIL HYDROCHLORIDE TABLETS
ANTIDEPRESSANTS	VIVACTIL TABLETS
ANTIDEPRESSANTS	WELLBUTRIN TABLETS
ANTIDEPRESSANTS	WELLBUTRIN TABLETS EXTENDED RELEASE
ANTIDEPRESSANTS	WELLBUTRIN TABLETS XL EXTENDED RELEASE
ANTIDEPRESSANTS	XENAZINE TABLETS
ANTIDEPRESSANTS	ZOLOFT ORAL CONCENTRATE
ANTIDEPRESSANTS	ZOLOFT TABLETS
ARBS	ATACAND TABLETS
ARBS	AVAPRO TABLETS
ARBS	BENICAR TABLETS
ARBS	COZAAR TABLETS
ARBS	DIOVAN CAPSULES
ARBS	DIOVAN TABLETS
ARBS	MICARDIS TABLETS
ARBS	TEVETEN TABLETS
ATYPICAL ANTIPSYCHOTICS	ABILIFY DISCMELT TABLETS ORALLY DISINTEGRATING
ATYPICAL ANTIPSYCHOTICS	ABILIFY ORAL SOLUTION
ATYPICAL ANTIPSYCHOTICS	ABILIFY SOLUTION INJECTION
ATYPICAL ANTIPSYCHOTICS	ABILIFY TABLETS

ATYPICAL ANTIPSYCHOTICS	CLOZAPINE TABLETS
ATYPICAL ANTIPSYCHOTICS	CLOZARIL TABLETS
ATYPICAL ANTIPSYCHOTICS	EQUETRO CAPSULES
ATYPICAL ANTIPSYCHOTICS	EQUETRO CAPSULES EXTENDED RELEASE
ATYPICAL ANTIPSYCHOTICS	FANAPT TABLETS
ATYPICAL ANTIPSYCHOTICS	FAZACLO TABLETS ORALLY DISINTEGRATING
ATYPICAL ANTIPSYCHOTICS	GEODON CAPSULES
ATYPICAL ANTIPSYCHOTICS	GEODON INJECTION
ATYPICAL ANTIPSYCHOTICS	HALDOL DECANOATE INJECTION
ATYPICAL ANTIPSYCHOTICS	HALDOL INJECTION
ATYPICAL ANTIPSYCHOTICS	HALDOL LIQUID
ATYPICAL ANTIPSYCHOTICS	HALDOL TABLETS
ATYPICAL ANTIPSYCHOTICS	HALOPERIDOL DECANOATE INJECTION
ATYPICAL ANTIPSYCHOTICS	HALOPERIDOL DECANOATE VIALS INJECTABLE
ATYPICAL ANTIPSYCHOTICS	HALOPERIDOL INJECTION
ATYPICAL ANTIPSYCHOTICS	HALOPERIDOL LACTATE ORAL SOLUTION
ATYPICAL ANTIPSYCHOTICS	HALOPERIDOL LACTATE VIALS INJECTABLE
ATYPICAL ANTIPSYCHOTICS	HALOPERIDOL ORAL SOLUTION
ATYPICAL ANTIPSYCHOTICS	HALOPERIDOL ORAL SOLUTION CONCENTRATE
ATYPICAL ANTIPSYCHOTICS	HALOPERIDOL TABLETS
ATYPICAL ANTIPSYCHOTICS	INVEGA SUSTENNA KIT
ATYPICAL ANTIPSYCHOTICS	INVEGA TABLETS EXTENDED RELEASE
ATYPICAL ANTIPSYCHOTICS	LOXAPINE CAPSULES
ATYPICAL ANTIPSYCHOTICS	LOXAPINE SUCCINATE CAPSULES
ATYPICAL ANTIPSYCHOTICS	LOXITANE C ORAL SOLUTION
ATYPICAL ANTIPSYCHOTICS	LOXITANE CAPSULES
ATYPICAL ANTIPSYCHOTICS	MOBAN TABLETS
ATYPICAL ANTIPSYCHOTICS	NAVANE CAPSULES
ATYPICAL ANTIPSYCHOTICS	RISPERDAL CONSTA DOSE PACK KIT
ATYPICAL ANTIPSYCHOTICS	RISPERDAL CONSTA INJECTION KIT
ATYPICAL ANTIPSYCHOTICS	RISPERDAL M TABLETS ORALLY DISINTEGRATING
ATYPICAL ANTIPSYCHOTICS	RISPERDAL SOLUTION
ATYPICAL ANTIPSYCHOTICS	RISPERDAL TABLETS
ATYPICAL ANTIPSYCHOTICS	RISPERIDONE ORAL SOLUTION
ATYPICAL ANTIPSYCHOTICS	RISPERIDONE TABLETS
ATYPICAL ANTIPSYCHOTICS	RISPERIDONE TABLETS ORALLY DISINTEGRATING

ATYPICAL ANTIPSYCHOTICS SAPHRIS TABLETS ATYPICAL ANTIPSYCHOTICS SEROQUEL TABLETS ATYPICAL ANTIPSYCHOTICS SEROQUEL TABLETS EXTENDED RELEASE ATYPICAL ANTIPSYCHOTICS THIOTHIXENE CAPSULES ATYPICAL ANTIPSYCHOTICS ZYPREXA INTRAMUSCULAR INJECTION ATYPICAL ANTIPSYCHOTICS ZYPREXA TABLETS ATYPICAL ANTIPSYCHOTICS ZYPREXA ZYDIS TABLETS CHOLINESTERASE INHIBITORS ARICEPT TABLETS ARICEPT TABLETS ORALLY DISINTEGRATING CHOLINESTERASE INHIBITORS CHOLINESTERASE INHIBITORS BETHANECHOL CHLORIDE TABLETS CHOLINESTERASE INHIBITORS BETHANECHOL CHOLRIDE TABLETS CHOLINESTERASE INHIBITORS COGNEX CAPSULES CHOLINESTERASE INHIBITORS EVOXAC CAPSULES CHOLINESTERASE INHIBITORS EXELON CAPSULES CHOLINESTERASE INHIBITORS EXELON ORAL SOLUTION CHOLINESTERASE INHIBITORS **EXELON PATCH** CHOLINESTERASE INHIBITORS GALANTAMINE CAPSULES EXTENDED RELEASE CHOLINESTERASE INHIBITORS GALANTAMINE IMMEDIATE RELEASE TABLETS CHOLINESTERASE INHIBITORS GALANTAMINE ORAL SOLUTION CHOLINESTERASE INHIBITORS GALANTAMINE TABLETS CHOLINESTERASE INHIBITORS MESTINON SYRUP CHOLINESTERASE INHIBITORS MESTINON TABLETS CHOLINESTERASE INHIBITORS MESTINON TIMESPAN TABLETS NAMENDA MEMANTINE HCI TABLETS PATIENT STARTER KIT CHOLINESTERASE INHIBITORS CHOLINESTERASE INHIBITORS NAMENDA ORAL SOLUTION CHOLINESTERASE INHIBITORS NAMENDA TABLETS CHOLINESTERASE INHIBITORS NEOSTIGMINE METHYLSULFATE INJECTION CHOLINESTERASE INHIBITORS PHYSOSTIGMINE SALICYLATE INJECTION CHOLINESTERASE INHIBITORS **PROSTIGMIN TABLETS** CHOLINESTERASE INHIBITORS PYRIDOSTIGMINE BROMIDE TABLETS CHOLINESTERASE INHIBITORS RAZADYNE CAPSULES EXTENDED RELEASE CHOLINESTERASE INHIBITORS **RAZADYNE ORAL SOLUTION** CHOLINESTERASE INHIBITORS **RAZADYNE TABLETS** CHOLINESTERASE INHIBITORS **REMINYL ORAL SOULTION** CHOLINESTERASE INHIBITORS **REMINYL TABLETS** CHOLINESTERASE INHIBITORS SALAGEN TABLETS

CHOLINESTERASE INHIBITORS	URECHOLINE TABLETS
LONG-ACTING OPIOIDS	ACTIQ LOZENGE
LONG-ACTING OPIOIDS	ASTRAMORPH PF INJECTION
LONG-ACTING OPIOIDS	AVINZA CAPSULES
LONG-ACTING OPIOIDS	AVINZA CAPSULES EXTENDED RELEASE
LONG-ACTING OPIOIDS	B AND O SUPPRETTES SUPPOSITORIES RECTAL NO 15A
LONG-ACTING OPIOIDS	B AND O SUPPRETTES SUPPOSITORIES RECTAL NO 16A
LONG-ACTING OPIOIDS	BELLADONNA AND OPIUM SUPPOSITORIES
LONG-ACTING OPIOIDS	DILAUDID AMPULES INJECTABLE
LONG-ACTING OPIOIDS	DILAUDID HYDROMORPHONE HYDROCHLORIDE INJECTION
LONG-ACTING OPIOIDS	DILAUDID HYDROMORPHONE HYDROCHLORIDE ORAL LIQUID
LONG-ACTING OPIOIDS	DILAUDID HYDROMORPHONE HYDROCHLORIDE TABLETS
LONG-ACTING OPIOIDS	DILAUDID ORAL LIQUID
LONG-ACTING OPIOIDS	DILAUDID RECTAL SUPPOSITORY
LONG-ACTING OPIOIDS	DILAUDID TABLETS
LONG-ACTING OPIOIDS	DILAUDID VIALS INJECTABLE
LONG-ACTING OPIOIDS	DILAUDID-HP AMPULES INJECTABLE
LONG-ACTING OPIOIDS	DILAUDID-HP HYDROMORPHONE HYDROCHLORIDE INJECTION
LONG-ACTING OPIOIDS	DILAUDID-HP VIALS INJECTABLE
LONG-ACTING OPIOIDS	DURAGESIC PATCH
LONG-ACTING OPIOIDS	DURAGESIC SYSTEM
LONG-ACTING OPIOIDS	DURAMORPH AMPULES INJECTABLE
LONG-ACTING OPIOIDS	FENTANYL TRANSDERMAL SYSTEM
LONG-ACTING OPIOIDS	FENTORA TABLETS
LONG-ACTING OPIOIDS	HYDROMORPHONE HYDROCHLORIDE INJECTION
LONG-ACTING OPIOIDS	HYDROMORPHONE HYDROCHLORIDE LIQUID
LONG-ACTING OPIOIDS	HYDROMORPHONE HYDROCHLORIDE SUPPOSITORIES
LONG-ACTING OPIOIDS	HYDROMORPHONE HYDROCHLORIDE SYRINGES DISPOSABLE
LONG-ACTING OPIOIDS	HYDROMORPHONE HYDROCHLORIDE TABLETS
LONG-ACTING OPIOIDS	HYDROMORPHONE HYDROCHLORIDE VIALS INJECTABLE
LONG-ACTING OPIOIDS	INFUMORPH SOLUTION
LONG-ACTING OPIOIDS	KADIAN CAPSULES EXTENDED RELEASE
LONG-ACTING OPIOIDS	KADIAN MORPHINE SULFATE CAPSULES EXTENDED RELEASE
LONG-ACTING OPIOIDS	MORPHINE SULFATE AMPULES INJECTABLE
LONG-ACTING OPIOIDS	MORPHINE SULFATE CONCENTRATED ORAL SOLUTION
LONG-ACTING OPIOIDS	MORPHINE SULFATE IMMEDIATE RELEASE ORAL SOLUTION CONCENTRATE

LONG-ACTING OPIOIDS	MORPHINE SULFATE INJECTION
LONG-ACTING OPIOIDS	MORPHINE SULFATE INJECTION PRESERVATIVE FREE
LONG-ACTING OPIOIDS	MORPHINE SULFATE IR ORAL SOLUTION
LONG-ACTING OPIOIDS	MORPHINE SULFATE ORAL SOLUTION
LONG-ACTING OPIOIDS	MORPHINE SULFATE RECTAL SUPPOSITORY
LONG-ACTING OPIOIDS	MORPHINE SULFATE SOLUTION
LONG-ACTING OPIOIDS	MORPHINE SULFATE SUPPOSITORIES
LONG-ACTING OPIOIDS	MORPHINE SULFATE SYRINGES DISPOSABLE
LONG-ACTING OPIOIDS	MORPHINE SULFATE TABLETS
LONG-ACTING OPIOIDS	MORPHINE SULFATE TABLETS EXTENDED RELEASE
LONG-ACTING OPIOIDS	MORPHINE SULFATE TABLETS SOLUBLE
LONG-ACTING OPIOIDS	MORPHINE SULFATE VIALS INJECTABLE
LONG-ACTING OPIOIDS	MS CONTIN TABLETS
LONG-ACTING OPIOIDS	MS CONTIN TABLETS EXTENDED RELEASE
LONG-ACTING OPIOIDS	MSIR CAPSULES IMMEDIATE RELEASE
LONG-ACTING OPIOIDS	MSIR IMMEDIATE RELEASE ORAL TABLETS
LONG-ACTING OPIOIDS	MSIR LIQUID
LONG-ACTING OPIOIDS	OPANA TABLETS
LONG-ACTING OPIOIDS	OPANA TABLETS EXTENDED RELEASE
LONG-ACTING OPIOIDS	OPIUM TINCTURE DEODORIZED
LONG-ACTING OPIOIDS	ORAL TRANSMUCOSAL FENTANYL CITRATE LOZENGES
LONG-ACTING OPIOIDS	ORAMORPH EXTENDED RELEASE TABLETS SUSTAINED RELEASE
LONG-ACTING OPIOIDS	ORAMORPH TABLETS EXTENDED RELEASE
LONG-ACTING OPIOIDS	OXYCONTIN EXTENDED RELEASED TABLETS CONTROLLED RELEASE
LONG-ACTING OPIOIDS	OXYCONTIN TABLETS EXTENDED RELEASE
LONG-ACTING OPIOIDS	RMS SUPPOSITORIES
LONG-ACTING OPIOIDS	ROXANOL ORAL SOLUTION
LONG-ACTING OPIOIDS	ROXANOL-T ORAL SOLUTION
LONG-ACTING OPIOIDS	RYZOLT TABLETS EXTENDED RELEASE
LONG-ACTING OPIOIDS	TRAMADOL HYDROCHLORIDE TABLETS
LONG-ACTING OPIOIDS	TRAMADOL HYDROCHLORIDE TABLETS EXTENDED RELEASE
LONG-ACTING OPIOIDS	ULTRAM TABLETS
LONG-ACTING OPIOIDS	ULTRAM TABLETS EXTENDED RELEASE
NEBULIZED INHALANTS	ACCUNEB INHALATION SOLUTION
NEBULIZED INHALANTS	ACETYLCYSTEINE INHALATION SOLUTION
NEBULIZED INHALANTS	ACETYLCYSTEINE SOLUTION

NEBULIZED INHALANTS	ALBUTEROL SULFATE INHALATION SOLUTION
NEBULIZED INHALANTS	ALUPENT INHALATION SOLUTION
NEBULIZED INHALANTS	ATROVENT INHALATION SOLUTION
NEBULIZED INHALANTS	BROVANA INHALATION SOLUTION
NEBULIZED INHALANTS	BUDESONIDE INHALATION SUSPENSION
NEBULIZED INHALANTS	CROMOLYN SODIUM INHALATION SOLUTION
NEBULIZED INHALANTS	DUONEB INHALATION SOLUTION
NEBULIZED INHALANTS	HYPER-SAL INHALATION SOLUTION
NEBULIZED INHALANTS	INTAL INHALATION SOLUTION
NEBULIZED INHALANTS	INTAL NEBULIZER INHALATION SOLUTION
NEBULIZED INHALANTS	IPRATROPIUM BROMIDE ALBUTEROL SULFATE INHALATION SOLUTION
NEBULIZED INHALANTS	IPRATROPIUM BROMIDE INHALATION SOLUTION
NEBULIZED INHALANTS	LEVALBUTEROL INHALANT SOLUTION
NEBULIZED INHALANTS	METAPROTERENOL SULFATE
NEBULIZED INHALANTS	METAPROTERENOL SULFATE INHALATION SOLUTION
NEBULIZED INHALANTS	METAPROTERENOL SULFATE SOLUTION
NEBULIZED INHALANTS	MUCOMYST INHALATION SOLUTION
NEBULIZED INHALANTS	MUCOMYST-10 INHALATION SOLUTION
NEBULIZED INHALANTS	PERFOROMIST INHALATION SOLUTION
NEBULIZED INHALANTS	PROVENTIL ORAL INHALATION SOLUTION
NEBULIZED INHALANTS	PULMICORT INHALATION SOLUTION
NEBULIZED INHALANTS	PULMICORT RESPULES INHALATION SUSPENSION
NEBULIZED INHALANTS	PULMOZYME RECOMBINANT INHALATION SOLUTION
NEBULIZED INHALANTS	S-2 INHALATION SOLUTION
NEBULIZED INHALANTS	SODIUM CHLORIDE INHALATION SOLUTION
NEBULIZED INHALANTS	TOBI INHALATION SOLUTION
NEBULIZED INHALANTS	TOBI TOBRAMYCIN INHALATION SOLUTION
NEBULIZED INHALANTS	VENTOLIN INHALATION SOLUTION
NEBULIZED INHALANTS	XOPENEX INHALATION SOLUTION
NEBULIZED INHALANTS	XOPENEX INHALATION SOLUTION CONCENTRATE
NEBULIZED INHALANTS	XOPENEX SOLUTION
OSTEOPOROSIS MEDICATIONS	ACTONEL TABLETS
OSTEOPOROSIS MEDICATIONS	ACTONEL WITH CALCIUM TABLETS
OSTEOPOROSIS MEDICATIONS	ACTONEL WITH CALCIUM TABLETS KIT
OSTEOPOROSIS MEDICATIONS	ALENDRONATE SODIUM TABLETS
OSTEOPOROSIS MEDICATIONS	AREDIA INJECTION

OSTEOPOROSIS MEDICATIONS	BONIVA INJECTION KIT
OSTEOPOROSIS MEDICATIONS	BONIVA TABLETS
OSTEOPOROSIS MEDICATIONS	CALCITONIN SALMON NASAL SPRAY SOLUTION
OSTEOPOROSIS MEDICATIONS	CALCITONIN SALMON VIALS INJECTABLE
OSTEOPOROSIS MEDICATIONS	DIDRONEL TABLETS
OSTEOPOROSIS MEDICATIONS	ETIDRONATE DISODIUM TABLETS
OSTEOPOROSIS MEDICATIONS	EVISTA TABLETS
OSTEOPOROSIS MEDICATIONS	FORTEO INJECTION
OSTEOPOROSIS MEDICATIONS	FORTEO PEN INJECTOR
OSTEOPOROSIS MEDICATIONS	FORTICAL NASAL SPRAY
OSTEOPOROSIS MEDICATIONS	FOSAMAX ONCE WEEKLY ORAL SOLUTION
OSTEOPOROSIS MEDICATIONS	FOSAMAX PLUS D TABLETS
OSTEOPOROSIS MEDICATIONS	FOSAMAX TABLETS
OSTEOPOROSIS MEDICATIONS	MIACALCIN INJECTION
OSTEOPOROSIS MEDICATIONS	MIACALCIN NASAL SPRAY
OSTEOPOROSIS MEDICATIONS	PAMIDRONATE DISODIUM INJECTION
OSTEOPOROSIS MEDICATIONS	RECLAST INJECTION
OSTEOPOROSIS MEDICATIONS	ZOMETA INJECTION

eAppendix C. Part D Claims Rejections in the Nursing Home Setting, 7 Classes of Interest (2006-2010)

Vear	class	Total Claims	Reject Rate	Product Not Covered	Utilization Management	Administrative Rejections
2006	ANTIDEPRESSANTS	309255	14%	11%	30%	59%
2007	ANTIDEPRESSANTS	326377	11%	8%	44%	48%
2008	ANTIDEPRESSANTS	304774	12%	4%	49%	47%
2009	ANTIDEPRESSANTS	311495	15%	4%	51%	45%
2010	ANTIDEPRESSANTS	314047	15%	2%	50%	47%
2006	ARBS	30183	16%	17%	26%	57%
2007	ARBS	33620	13%	9%	44%	47%
2008	ARBS	33616	17%	11%	49%	40%
2009	ARBS	33925	19%	23%	39%	38%
2010	ARBS	33383	21%	19%	35%	46%
2006	ATYPICAL ANTIPSYCHOTICS	203064	15%	9%	42%	48%
2007	ATYPICAL ANTIPSYCHOTICS	211270	13%	1%	56%	43%
2008	ATYPICAL ANTIPSYCHOTICS	195708	15%	1%	56%	42%
2009	ATYPICAL ANTIPSYCHOTICS	202059	20%	1%	55%	44%
2010	ATYPICAL ANTIPSYCHOTICS	198972	20%	1%	57%	43%
2006	CHOLINESTERASE INHIBITORS	134131	15%	6%	37%	56%
2007	CHOLINESTERASE INHIBITORS	155271	10%	1%	43%	56%
2008	CHOLINESTERASE INHIBITORS	159076	12%	1%	45%	54%
2009	CHOLINESTERASE INHIBITORS	167800	13%	1%	47%	52%
2010	CHOLINESTERASE INHIBITORS	172429	14%	1%	45%	54%
2006	LONG-ACTING OPIOIDS	68937	19%	12%	47%	42%
2007	LONG-ACTING OPIOIDS	70066	16%	14%	53%	32%
2008	LONG-ACTING OPIOIDS	70368	18%	6%	68%	26%
2009	LONG-ACTING OPIOIDS	80363	25%	18%	46%	36%
2010	LONG-ACTING OPIOIDS	68821	28%	15%	41%	44%
2006	NEBULIZED INHALANTS	69590	37%	49%	29%	22%
2007	NEBULIZED INHALANTS	72819	32%	58%	22%	20%
2008	NEBULIZED INHALANTS	73650	38%	49%	32%	19%
2009	NEBULIZED INHALANTS	69441	24%	23%	50%	27%
2010	NEBULIZED INHALANTS	69571	26%	20%	52%	27%
2006	OSTEOPOROSIS MEDICATIONS	64204	18%	8%	39%	53%

2007	OSTEOPOROSIS MEDICATIONS	64753	13%	9%	49%	42%
2008	OSTEOPOROSIS MEDICATIONS	57715	21%	4%	38%	58%
2009	OSTEOPOROSIS MEDICATIONS	55236	21%	15%	43%	43%
2010	OSTEOPOROSIS MEDICATIONS	50296	20%	9%	33%	59%
ARBS indicates angiotensin receptor blockers.						

Source: Authors' analysis of data provided by Omnicare, Inc, the nation's largest long-term care pharmacy. Data include all paid and rejected Part D claims from the month of March in each study year.