

ONLINE APPENDIXES

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**Medicare coverage of
and payment for
home infusion therapy**

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6-A

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This appendix provides more detailed data on Medicare expenditures for home infusion drugs in 2009. This includes data on the highest expenditure home infusion drugs covered by Part B and Part D, demographic characteristics of beneficiaries receiving Medicare covered home infusion drugs, and home health use among these beneficiaries.

We contracted with Acumen, LLC, to analyze data on Medicare's current expenditures on home infusion. Home infusion drugs covered under Part B were identified using claims data for drugs covered under Medicare's local coverage policy for external infusion pumps and related drugs in the home. Part D home infusion drugs were identified using Part D prescription drug event data for intravenous (IV) drugs paid by Part D for beneficiaries who did not reside in a long-term care facility when the prescription was filled. We assume these Part D covered IV drugs were administered in the home, although we cannot rule out the possibility that some drugs may have been transported ("brown bagged") by beneficiaries to physician offices or hospital outpatient departments for administration.

Medicare spending on home infusion drugs is concentrated on a small number of products. IV antibiotics covered by Part D accounted for the largest number of users of Medicare-covered home infusion drugs in 2009 (Table 6A-1). The remainder of Medicare spending on Part D infusion drugs was largely concentrated on a few products with a very small number of users and a high cost per user. For example, immune globulin and alpha-1 proteinase inhibitor accounted for about half of Part D gross drug costs for intravenous drugs. In addition, several drugs for rheumatoid arthritis or cancer (infliximab, bevacizumab, and rituximab) with a high cost per user but a small number of users are among the top 10 IV drugs with the highest Medicare Part D expenditures.

Six products account for 97 percent of Medicare Part B spending on home infusion drugs (i.e., total parenteral nutrition, treprostinil and epoprostenol for pulmonary arterial hypertension, immune globulin for primary immune deficiency, milrinone lactate for heart failure, and continuous insulin via pump for diabetes) (Table 6A-2). With the exception of subcutaneous insulin, the number of beneficiaries using these drugs was quite small and the cost per user was substantial.

The degree to which the Medicare home health benefit is a source of coverage for nursing services associated

with home infusions varies by drug. There is a high rate of home health use among beneficiaries who received IV antibiotics covered by Part D (Table 6A-3). Among Part B covered home infusion drugs, home health use was more common among those receiving parenteral nutrition and milrinone lactate than other Part B home infusion drugs (Table 6A-4).

Use of home infusion drugs by Medicare beneficiaries varies by certain demographic and beneficiary characteristics. The populations with the highest share of beneficiaries using Part D intravenous infusion drugs were beneficiaries under age 65 or over age 85, those with end stage renal disease, or minorities (Table 6A-5). Beneficiaries enrolled in the low-income subsidy and prescription drug plans (since these plans enroll a disproportionate share of low-income subsidy enrollees) were also more likely to use Part D home infusion drugs than their counterparts (Table 6A-5). Beneficiaries who were younger or had end stage renal disease were more likely to use Part B home infusion drugs than other beneficiaries (Table 6A-6). ■

**TABLE
6A-1****Top 10 Medicare Part D home infusion drugs account for 73 percent of Medicare Part D home infusion drug expenditures in 2009**

Drug	Indication/ type of drug	Gross drug costs (in millions)	Percent of total gross drug costs for IV Part D drugs	Number of users	Percent of all Part D users of IV drugs	Average gross drug cost per user
Immune globulin	Multiple indications (e.g., neuropathy)	\$139.6	33.1%	2,007	2.0	\$69,541
Alpha-1 proteinase inhibitor	Alpha 1-antitrypsin deficiency	68.8	16.3	843	0.8	81,607
Daptomycin	Antibiotic	24.9	5.9	5,061	5.0	4,912
Infliximab	Rheumatoid arthritis	16.8	4.0	1,243	1.2	13,515
Vancomycin HCL	Antibiotic	12.0	2.9	34,595	34.1	348
Bevacizumab	Cancer	9.7	2.3	474	0.5	20,428
Parenteral amino acid 20% no. 1	Parenteral nutrition additive	9.5	2.3	939	0.9	10,124
Parenteral amino acid 15% no. 1	Parenteral nutrition additive	9.2	2.2	1,466	1.4	6,271
Rituximab	Cancer, rheumatoid arthritis	8.4	2.0	466	0.5	17,937
Meropenem	Antibiotic	8.0	1.9	2,367	2.3	3,381
All Part D covered home infusion drugs		421.7	100	101,352	100	4,161

Note: IV (intravenous), HCL (hydrochloride). Excluded from this analysis are enrollees in Medicare Advantage plans that bundle home infusion drugs under Part C and Part D enrollees who received intravenous infusion drugs under Part D only while residing in a nursing facility. The columns do not sum to the total because the lowest expenditure drugs that account for 27 percent of Part D home infusion drug expenditures are not broken out separately.

Source: MedPAC analysis of results from Acumen, LLC, analysis of Medicare Part D prescription drug event data, the Medicare enrollment database, and the Minimum Data Set.

**TABLE
6A-2****Top 6 Medicare Part B home infusion drugs account for 97 percent of Medicare Part B home infusion drug expenditures in 2009**

Drug	Indication	Medicare spending (in millions)	Percent of total Part B home infusion drug spending	Number of users	Allowed charges per user
Parenteral nutrition	Permanently nonfunctioning gastrointestinal tract	\$159.0	35%	4,745	\$33,511
Treprostinil	Pulmonary arterial hypertension	123.6	27	977	126,490
Immune globulin	Primary immune deficiency	64.5	14	2,040	31,615
Milrinone lactate	Heart failure	54.1	12	1,036	52,189
Epoprostenol	Pulmonary arterial hypertension	23.4	5	729	32,066
Subcutaneous insulin	Diabetes	16.0	4	11,761	1,364
All Part B covered home infusion drugs		453.2	100	36,314	12,479

Note: The columns do not sum to the total because the lowest expenditure drugs that account for 3 percent of Part B home infusion drug expenditures are not broken out separately. Data reflect only drug costs, not supplies or equipment.

Source: MedPAC analysis of results from Acumen, LLC, analysis of Medicare claims data.

**TABLE
6A-3****Home health nurse visits for beneficiaries receiving
selected Part D intravenous drugs, 2009**

Drug	Percent of prescriptions with home health nurse visit within 6 days of prescription dispensed
Immune globulin	18%
Alpha-1 proteinase inhibitor	21
Daptomycin	76
Infliximab	7
Vancomycin HCL	63
Bevacizumab	8
Parenteral amino acid 20% no. 1	15
Parenteral amino acid 15% no. 1	19
Rituximab	7
Meropenem	59

Note: HCL (hydrochloride). Prescriptions furnished to Part D enrollees while they resided in a long-term care facility were excluded. Excluded from this analysis are enrollees in Medicare Advantage plans that bundle home infusion drugs under Part C.

Source: MedPAC analysis of results from Acumen, LLC, analysis of Medicare Part D prescription drug event data, Medicare claims data, and the Minimum Data Set.

**TABLE
6A-4****Home health nurse visits for beneficiaries receiving
selected Part B intravenous home infusion drugs, 2009**

Drug	Percent of prescriptions with home health nurse visit within 6 days of prescription dispensed
Parenteral nutrition	53%
Treprostinil	8
Intravenous immune globulin	23
Milrinone lactate	68
Epoprostenol	7

Source: MedPAC analysis of results from Acumen, LLC, analysis of Medicare claims data.

**TABLE
6A-5****Demographic and plan characteristics of beneficiaries
using Part D home infusion drugs, 2009****Number of beneficiaries using Part D home infusion
drugs per 10,000 Part D enrollees**

Age	
0-64	58
65-74	25
75-84	34
85+	44
Non-ESRD	35
ESRD	196
Female	37
Male	36
White	33
Minority	51
Non-LIS	25
LIS	55
PDP	41
MA-PD	27
All Part D enrollees	37

Note: ESRD (end-stage renal disease), LIS (low-income subsidy), PDP (prescription drug plan), MA-PD (Medicare Advantage-prescription drug plan). Excluded from this analysis are enrollees in Medicare Advantage plans that bundle home infusion drugs under Part C. Part D enrollees who received intravenous infusion drugs under Part D only while residing in a nursing facility are not counted as using a Part D home infusion drug in this analysis.

Source: MedPAC analysis of results from Acumen, LLC, analysis of Medicare Part D prescription drug event data, the Medicare enrollment database, the common environment database, and the Minimum Data Set.

**TABLE
6A-6****Demographic characteristics of beneficiaries using Part B home infusion drugs, 2009****Number of FFS beneficiaries using Part B home
infusion drugs per 10,000 beneficiaries**

Age	
0-64	17
65-74	11
75-84	9
85+	2
Non-ESRD	10
ESRD	37
Female	10
Male	12
White	11
Minority	8
Non-dual eligible	11
Dual eligible	11
All FFS beneficiaries	11

Note: FFS (fee-for-service), ESRD (end-stage renal disease).

Source: MedPAC analysis of results from Acumen, LLC, analysis of Medicare claims data and the enrollment database.
