

Real-World Costs of Administering Disease-Modifying Drug Infusions Among Patients with Multiple Sclerosis: A US Retrospective Administrative Claims Database Analysis



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CONCLUSIONS

- Non-DMD costs on each day that an infusion was given were:
 - \$936 for alemtuzumab
 - \$830 for ocrelizumab
 - \$401 for natalizumab

Real-world costs of administering DMD infusions among patients with MS should be considered

There are challenges in setting rules for specificity and sensitivity (e.g., time frame, code category, etc.) for capturing appropriate costs

INTRODUCTION

- In addition to the cost of the medications, initiation of DMDs in patients with MS may incur administration and monitoring costs that include laboratory tests, procedures, and visits¹
- Little is known about the resource use and costs associated with administration and monitoring of infusion DMDs in US patients with MS



OBJECTIVE

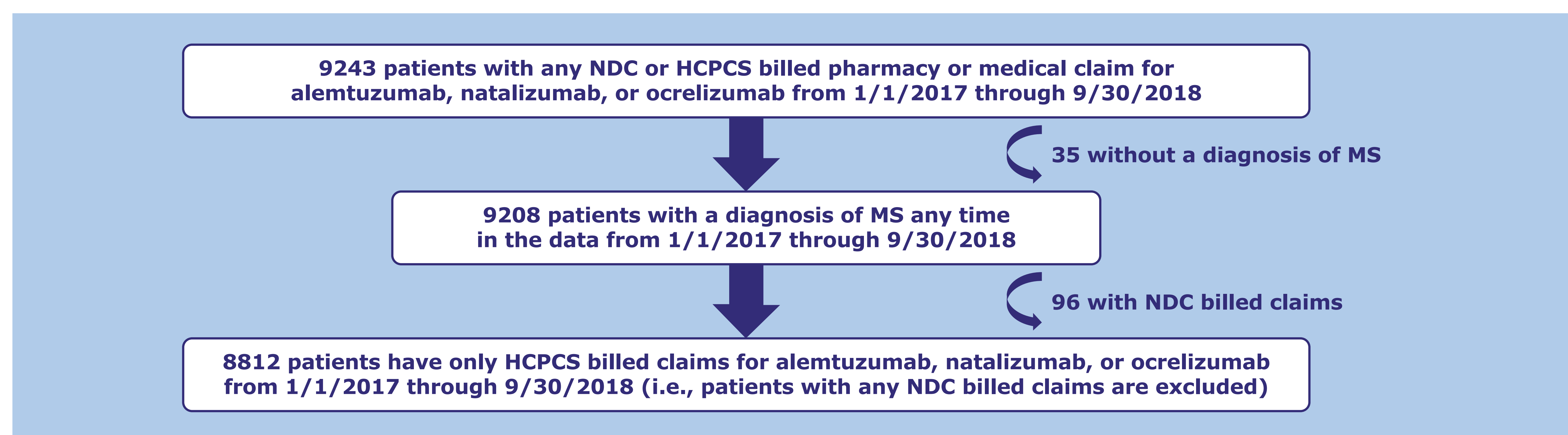
- To document, categorize, and quantify real-world costs associated with administering MS DMD infusions (natalizumab, alemtuzumab, and ocrelizumab) using medical billing codes occurring on the same day as a DMD infusion



METHODS

- Patients with a diagnosis of MS and ≥ 1 HCPCS billed medical claim for natalizumab, alemtuzumab, or ocrelizumab were identified from the IQVIATM RWD Adjudicated Claims–US database from 1/1/2017–9/30/2018
- All medical billing codes (i.e., HCPCS, CPT and Revenue) occurring on the same day as a HCPCS-coded claim were included
- The primary outcome was the average non-DMD cost per infusion-day (i.e., per dose) by category and DMD

Figure 1. Patient Selection



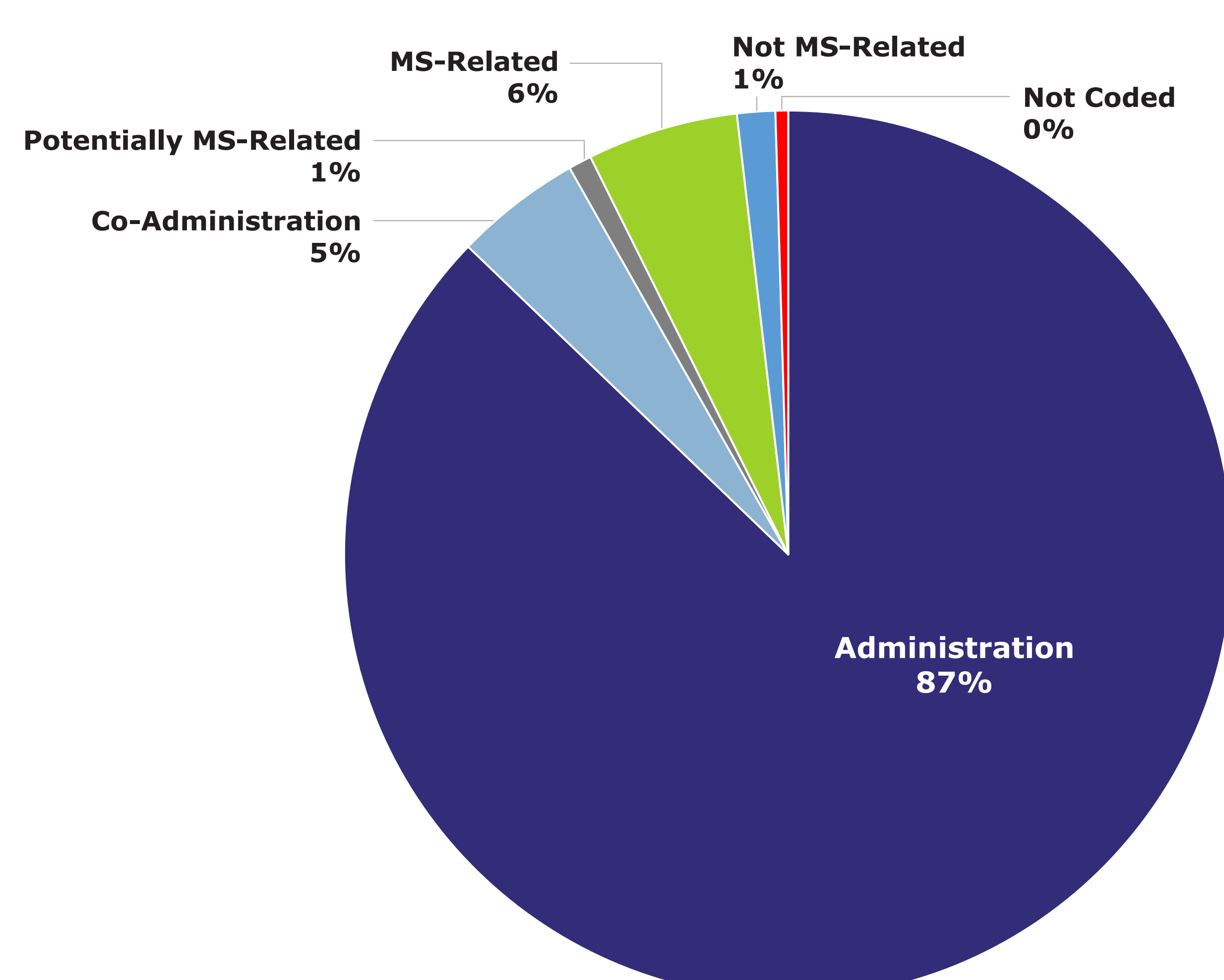
RESULTS

Figure 2. Cost per Infusion Day by Cost Category



- 8812 patients meeting eligibility criteria had 63,389 infusion days
- Mean total non-DMD costs for all medical codes billed on infusion-day were \$936 for alemtuzumab, \$830 for ocrelizumab, and \$401 for natalizumab
- Most non-DMD costs were categorized as administration costs; costs for administration per infusion-day were \$827 for alemtuzumab, \$750 for ocrelizumab, and \$346 for natalizumab
- The next most costly categories were co-administration costs (e.g., pre-treatment steroid, antihistamine, pregnancy test, lab tests, etc.; alemtuzumab \$78, ocrelizumab \$52, and natalizumab \$18 per infusion-day), MS-related costs (alemtuzumab \$5, ocrelizumab \$18, and natalizumab \$25 per infusion-day), potentially MS-related costs (alemtuzumab \$18, ocrelizumab \$4, and natalizumab \$4 per infusion-day), and Not MS-related costs (alemtuzumab \$9, ocrelizumab \$5, and natalizumab \$6 per infusion-day)

Figure 3. Cost Components of Overall Day of Infusion



Note: natalizumab is administered every 28 days, alemtuzumab is administered for 5 days in Year 1 and 3 days in Year 2, and ocrelizumab is administered every 6 months