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How Will the Transition to ICD-10 Affect Urology Coding? An Analysis of ICD-9 Code Use from a Large Group Practice

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Abstract

Introduction: On October 1, 2015 the ICD (International Classification of Diseases)-10-CM (10th Revision, Clinical Modification) code set replaced ICD-9 (9th Revision) for coding medical encounters in the United States. The introduction of this unique, expanded code set will change the way medical encounters are coded, and may affect specialties and subspecialists to different degrees.

Methods: A retrospective review was performed evaluating ICD-9 codes used at a large urology group. The most commonly used codes were evaluated in the office and hospital settings, and also from 3 individual subspecialists including a men's health/infertility subspecialist, a pelvic floor/reconstruction subspecialist and a pediatric subspecialist.

Results: The top 30 ICD-9 codes comprised 82.5% and 80.7% of the codes chosen in the office and hospital settings, with a 1:1 conversion from ICD-10 in 60% (18 of 30) and 36.7% (11 of 30), respectively. The top 25 codes from the 3 subspecialists (men's health/infertility, pelvic floor/reconstruction and pediatric) comprised 86.8%, 88.7% and 88.1% of the ICD-9 codes chosen, with a 1:1 correlation in 48% (12 of the top 25), 56% (14 of 25) and 40% (10 of 25), respectively. A significant number of unspecified codes was used across all of the aspects of practice.

Conclusions: Urologists need to be aware of their practice patterns when converting from ICD-9 to ICD-10. The high percentage of codes concentrated in the top 25 of a practice may allow urologists to focus on their individual needs. Improved documentation and coding education may decrease the number of unspecified codes chosen, leading to improved coding accuracy.

Key Words: International Classification of Diseases, clinical coding

The United States health care industry has used the ICD-9 code set for reimbursement purposes since it was mandated in 2003 by HIPAA (the Health Insurance Portability and Accountability Act of 1996). The ICD code set is owned and copyrighted by the World Health Organization. In 2009 the United States Department of Health and Human Services published a final rule requiring the replacement of the ICD-9 code set with the updated version, ICD-10, with an implementation date originally set for October 1, 2013.[1] The implementation date was pushed back twice[2,3] and was scheduled for October 1, 2015. As of that date ICD-9 codes are no longer being accepted.

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ICD-10 was created as a new and unique code set from ICD-9. It has a novel structure and unique design, along with a few new coding rules. It uses updated language compared to ICD-9 and is significantly expanded, with new concepts such as condition laterality, location, etiology and manifestation, along with combination codes and encounter type codes. Providers, especially those unfamiliar with ICD-9, may find several challenges when learning this new code set. A significant burden will likely be placed on providers due to increased time for documentation and code search, with subsequent lost productivity and payment disruption. It has been estimated that the cost of lost productivity for a small group could be $8,500 to $20,500, a medium group $72,649 to $166,649 and a large group $728,487 to $1,666,487, respectively. Similarly, payment disruption has been estimated to be $22,579 to $100,349 for a small group, $75,264 to $334,498 for a medium group and $752,630 to $3,344,976 for a large group.[4] This burden may differ among specialties and even subspecialties, depending on the number of codes typically used and the degree of change from ICD-9 to ICD-10 for those conditions. We determined the effect the transition to ICD-10 may have on the practice of urology, including office and hospital visits, and that of certain subspecialists.

Methods

Using billing data a retrospective review was performed on the ICD-9 codes chosen by providers at a large urology practice in Baltimore, Maryland in 2014. Codes were chosen by the provider, but may have been changed by a coding/billing specialist. A list was created for the office visits and for hospital encounters. The codes were organized in order by frequency of use and percentage of use. This same type of review was then performed for 3 individual providers with a urological subspecialty, including men's health/infertility, pelvic floor/reconstruction and pediatric urology. The number of codes that the 3 subspecialists used in 2014 was noted, along with the percentage of each. Since the data consisted of code use rather than individual encounters, the number of codes used was greater than the number of encounters. The top 10, top 25 and top 50 codes of each subset were analyzed for frequency of use. The top 30 hospital and office codes were analyzed for the potential impact of the change from ICD-9 to ICD-10, and this was similarly done for the top 25 codes for each of the 3 subspecialists.

Results

In 2014 a total of 936 unique ICD-9 codes were used 613,708 times in the office and 504 unique ICD-9 codes were used 37,977 times in the hospital (see table). When looking at the frequency of commonly used codes, 497 unique codes were used at least 10 times in the office and 257 codes were used at least 10 times in the hospital, while 183 codes were used more than 100 times in the office and 47 codes were used more than 100 times in the hospital. As for the 3 subspecialists the total number of unique ICD-9 codes used was 189 for men's health/infertility (77 codes used 3 or fewer times), 158 for pelvic floor/reconstruction (69 used 3 or fewer times) and 97 for pediatric (51 used 3 or fewer times).

When evaluating the most commonly used codes, the 25 codes in the office setting comprised 74.4% of the total ICD-9 codes chosen vs 85.1% in the hospital setting. Men's health/infertility, pelvic floor/reconstruction and pediatric subspecialists comprised 86.8%, 88.7% and 88.1% of the ICD-9 codes chosen, respectively. When expanding to the top 50 codes these numbers increase to 87.0% in the office setting, 94.0% in the hospital, 95.6% for the men's health/infertility specialist, 96.2% for the pelvic floor/reconstruction specialist and 96.5% for the pediatric specialist.

Supplementary Appendix 1 (http://urologypracticejournal/com/) shows the 30 most commonly used ICD-9 codes in the office and hospital settings, while supplementary Appendix 2 (http://urologypracticejournal.com/) shows the top 25 codes for each of the 3 subspecialists along with an analysis of the potential impact of conversion to ICD-10 on code choice. A 1:1 conversion from ICD-9 to ICD-10 codes or a single ICD-10 code for the condition was present in 18 of the top 30 office codes (60%) but only 11 of 30 hospital codes (36.7%), whereas it was present in 12 of the top 25 (48%) for the men's health/infertility specialist, 14 of the top 25 (56%) for the pelvic floor/reconstruction specialist and 10 of the top 25 (40%) for the pediatric specialist. The more simple transition coding appeared to be common urinary symptoms and certain cancers without complexity in ICD-10. A significant number of unspecified codes was used across all aspects of practice.

Table.

Practice Type	No. Unique ICD-9 Codes Used	Top 10 Codes (%)	Top 25 Codes (%)	Top 50 Codes (%)
Office	936	49.0	74.4	87.0
Hospital	504	71.5	85.1	94.0
Men's health/infertility subspecialist	189	63.3	86.8	95.6
Pelvic floor/reconstruction subspecialist	158	70.8	88.7	96.2
Pediatric subspecialist	97	64.6	88.1	96.5