
Trends in reporting of chronic conditions: hypertension and chronic kidney disease

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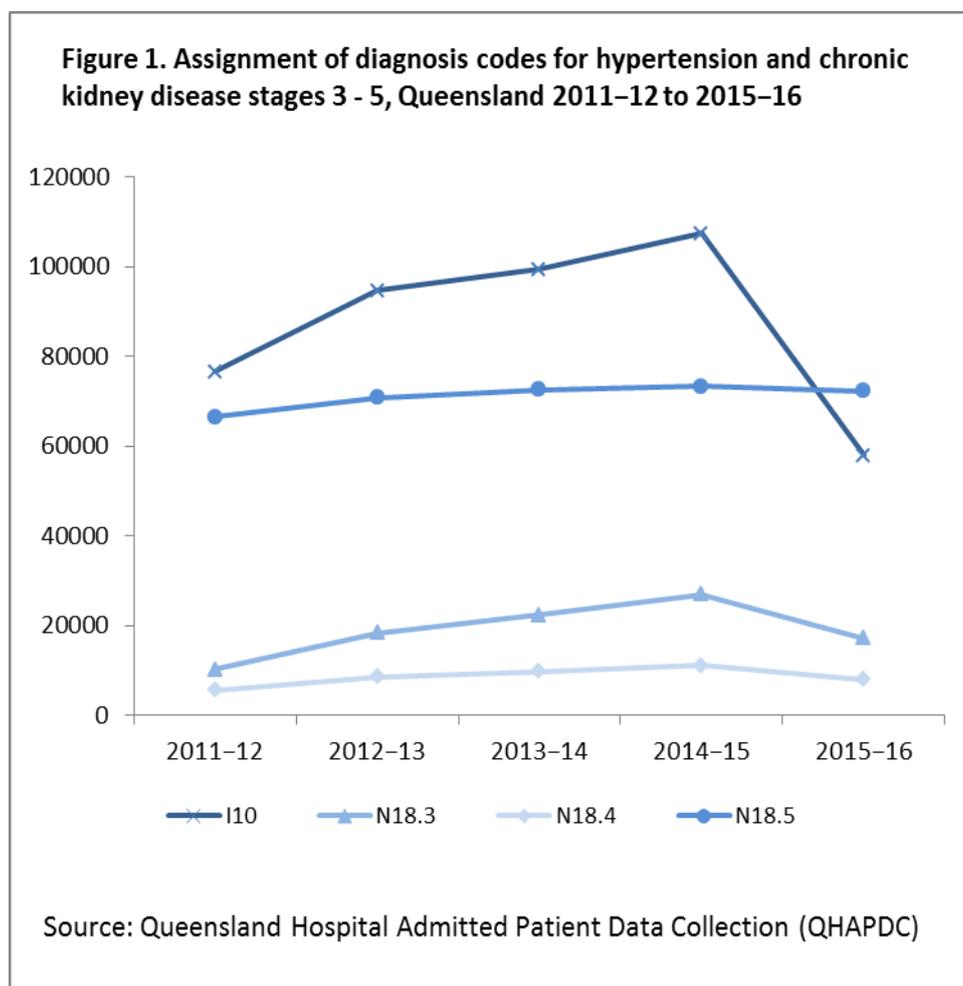
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The implementation of The International Statistical Classification for Diseases and Health Problems, Tenth Revision, Australian Modification (ICD-10-AM) Ninth Edition on 1 July 2015 has impacted data relating to hypertension and chronic kidney disease.

The instance of diagnosis code assignment for hypertension and chronic kidney disease stages 3 – 5 as part of the Queensland Hospital Admitted Patient Data Collection (QHAPDC) had been consistently increasing each year until 2015-16.



Prior to Ninth Edition, conditions such as diabetes mellitus had a ‘code also’ requirement whereby specified conditions such as hypertension (I10 *Essential (primary) hypertension*) and chronic kidney disease stages 3 to 5 (N18.3 *Chronic kidney disease, stage 3*, N18.4, *Chronic kidney disease, stage 4*, N18.5 *Chronic kidney disease, stage 5*) were required to be assigned (where present) with diabetes mellitus in order to fully describe the condition. This was irrespective of whether the hypertension or chronic kidney disease was treated during the episode of care or not. ICD-10-AM Ninth Edition saw the removal of

“code also” relationship between these conditions (Figure 1).

Also as part of ICD-10-AM Ninth Edition, a new temporary subset of diagnosis codes was implemented. These supplementary codes are intended to capture chronic conditions that did not meet the criteria for coding (as instructed in Australian Coding Standard 0002 *Additional diagnoses*

and other general and specialty standards, coding conventions, and coding rules)¹, such as hypertension and chronic kidney disease.

This change in coding convention has resulted in a reduction in code assignment for (essential primary) hypertension and chronic kidney disease stage 3 – 5 diagnosis codes (Table 1).

Table 1: Hypertension and chronic kidney disease diagnosis code assignment, all Queensland hospitals (public and private), 2014-15 to 2015-16

Code	Description	2014-15	2015-16	Diff	%
I10	<i>Essential (primary) hypertension</i>	107,440	57,919	49,521	-46%
N18.3	<i>Chronic kidney disease, stage 3</i>	27,020	17,195	9,825	-36%
N18.4	<i>Chronic kidney disease, stage 4</i>	11,113	7,984	3,129	-28%
N18.5	<i>Chronic kidney disease, stage 5</i>	73,318	72,333	985	-1%

The supplementary codes for chronic conditions implemented as part of ICD-10-AM Ninth Edition include a diagnosis code for hypertension (U82.3 *Hypertension*) and a single range code for chronic kidney disease (U87.1 *Chronic kidney disease, stage 3-5*). Of the 1,100,303 supplementary codes for chronic conditions that were assigned in 2015-16 QHAPDC data, U82.3 Hypertension was the most frequently assigned code while U87.1 *Chronic kidney disease, stage 3-5* was ninth (Table 2).

Table 2: Rate of assignment - hypertension and chronic kidney disease supplementary codes of chronic conditions, Queensland 2015-16

Rank	Code	Description	2015-16
1	U82.3	<i>Hypertension</i>	366,052
9	U87.1	<i>Chronic kidney disease, stage 3-5</i>	31,784

As supplementary codes for chronic conditions are intended to capture chronic conditions that did not necessitate admission to hospital nor were not treated during the episode of care, it would not be appropriate to combine the counts for the Chapter code with the supplementary code condition.

Therefore when analysing data relating to hypertension, the rates of code assignment for I10 *Essential (primary) hypertension* and U82.3 *Hypertension* cannot be aggregated. This is the same for chronic kidney disease.

When analysing data for these chronic conditions from a treatment perspective the Chapter codes should be used. If the analysis of the data relates to prevalence of these conditions, both the Chapter and supplementary codes for chronic conditions should be used.

It is recommended that anyone intending to analyse this data should contact the Statistical Services Branch for further information.

¹ Australian Consortium for Classification Development (2015) *Australian Coding Standards Ninth Edition - 1 July 2015*. Darlinghurst: Independent Hospital Pricing Authority.

Conclusion

Changes to coding standards as part of ICD-10-AM Ninth Edition have led to a significant shift in the assignment of diagnosis codes for hypertension and chronic kidney disease stage 3 - 5.

Care should be taken when comparing trends in assignment of these codes for hospital separations pre and post 2015-16 in light of these changes.