

Introduction

- Chronic Kidney Disease (CKD) is a long-term condition that impairs kidney function. Anemia is a common, often undiagnosed, and potentially reversible complication in CKD and is associated with a reduced quality of life, worse renal survival, an increase in morbidity and mortality, and higher costs.
- Among the professionals involved in caring for patients with MRC anemia, the general practitioner is undoubtedly one of the main specialised figures since, in most cases, he or she is the first to come into contact with patients and, therefore, must be promptly trained to identify and correctly refer the patient to the specialist-nephrologist, thus enabling multidisciplinary management of patients.
- The volume of activities that characterises the work of territorial medicine, however, often does not allow the physician to have the opportunity to intercept the patient early on by means of a more in-depth evaluation of the parameters and, as a result, no adequate intake strategies, that include prompt referral to the nephrologist for formulation of a possible diagnosis, are implemented.

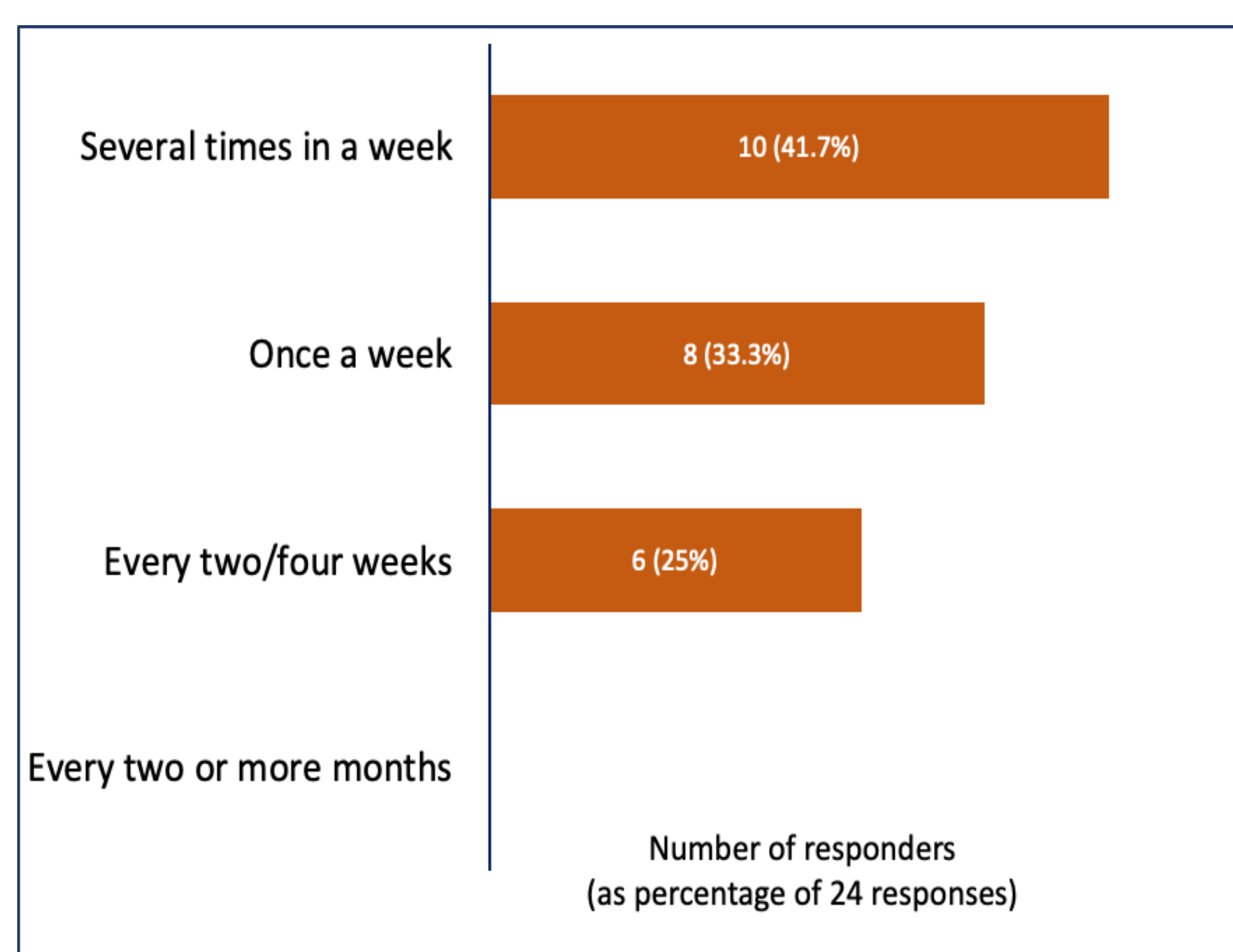
Objective

- This study evaluated the effectiveness of the Nephrological Card (NC), a tool developed to improve early diagnosis of CKD and anemia, with a small sample of Italian General Practitioners (GPs).

Methods

- The NC online survey was developed by a scientific research team and validated by a scientific committee that included (2) internists, (2) GPs, and (2) nephrologists.
- The survey consisted of 7 multiple choices and 1 open-ended question and was distributed to 24 selected GPs who had been using the NC in their clinical practice for at least 3 months. GPs covered around 30,000 patients.
- The data collected were aggregated and anonymised and descriptive statistical and thematic analyses were performed.

Figure 1. Frequency of use of the Nephrological Card for the diagnosis of Chronic Kidney Disease.



Results

- The NC was used more than once a week by 41.7 % and once a week by 33.3% of the respondents. 75% of respondents used the nephrology card at least once a week (Figure 1).
- The most frequently encountered clinical conditions that led to patient evaluation by Nephrology Tab were hypertension in 26% of cases, diabetes mellitus in 25%, and metabolic syndrome in 18.8% (Figure 2).
- 91.7% percent of respondents agreed that the use of the Nephrology Card can facilitate the work of the GP in identifying patients with Anemia secondary to MRC and that its use should be extended to all GPs for correct diagnosis and appropriate referral to the nephrologist/internist.
- All the respondents considered it vital to include the NC as a standard tool in the management software.
- When asked about potential NC improvements, only 37.5% of respondents provided suggestions, including the need for a digital version.
- 9 of the 24 respondents did not consider adding any further suggestions, while 9 of them agreed that the nephrology card was excellently structured and a valuable tool for the analysis of kidney function in individuals at risk for CKD in the general practice setting.
- 6 respondents suggested some improvements to the NC. In particular, two emerging themes were identified among the responses: the integration of the NC within the management software and a new features that would be useful to add in a later version (Table 1).

Conclusion

- Anemia can often be associated with Chronic Kidney Disease (CKD), a condition that can irreparably damage the kidneys. It's an impactful disease in people's lives where, in addition to the difficulty in making a timely diagnosis, there's a lack of knowledge about the disease among patients.
- The GPs are the first healthcare professionals in contact with the patients potentially affected by CKD, and also a point of reference for the treatment of complications.
- The results from using the Nephrological Card over a 3-month period highlighted the real need to provide support to GPs, not only in terms of increasing awareness about Chronic Kidney Disease and its complications, but also to provide clinicians with a method and tools to quickly and accurately investigate the condition of patients with the aim of enhancing early diagnosis.
- It is essential to implement management software for GPs and initiate strong and reliable networks among nephrologists, internal medicine nephrologists, and GPs, to overcome the issues related to late diagnoses. Increasing awareness about this disease, understanding the unmet needs of patients, and consolidating the multidisciplinary approach between specialists and primary care physicians are crucial steps to improve health outcomes.
- The study results indicated that the NC could aid the early detection and disease management of anemia as a complication of CKD, thus potentially optimising CKD patient care in Italy.

References

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Figure 2. Medical conditions most frequently encountered during the evaluation of the patient with the Nephrological Card.

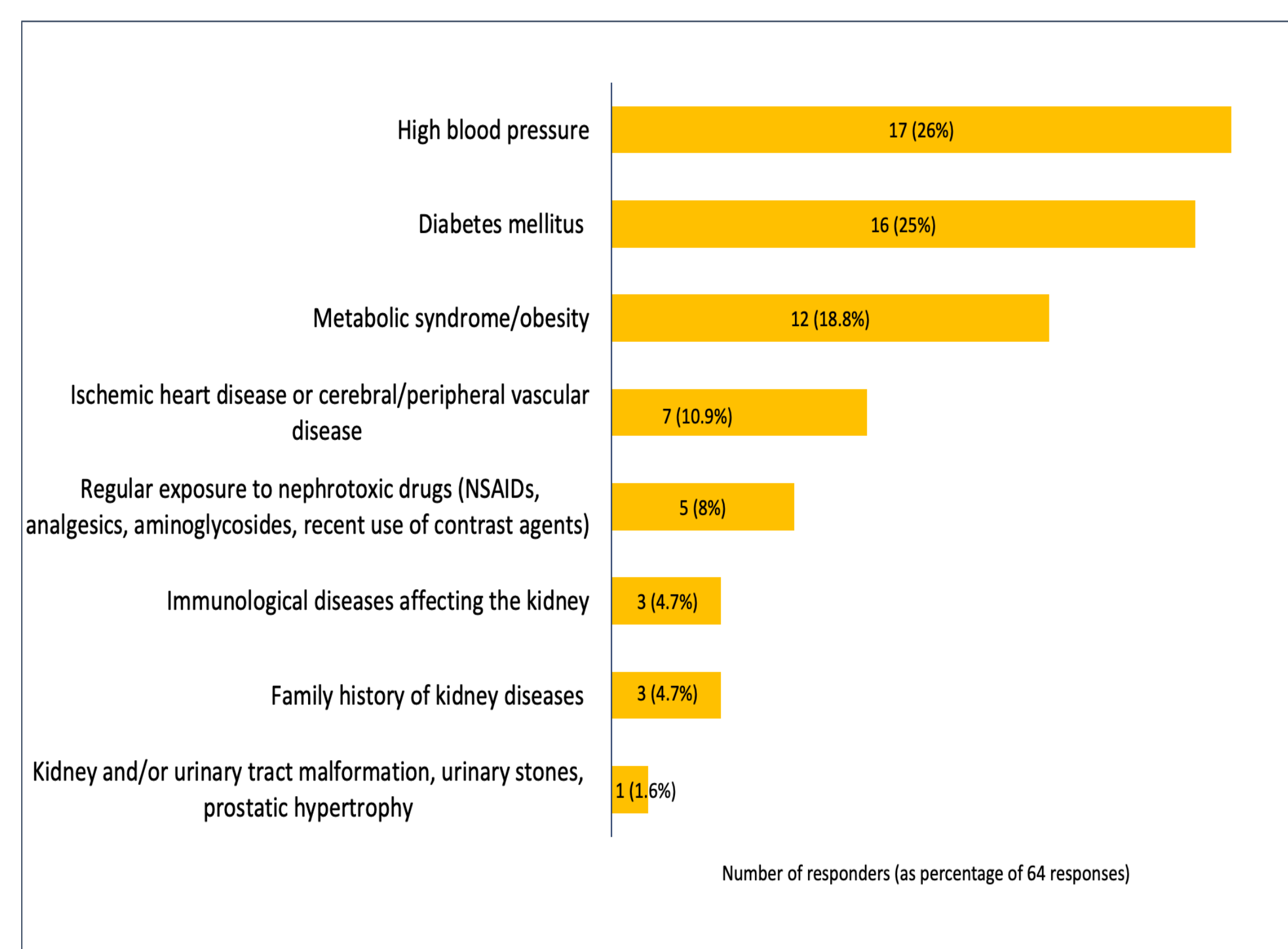


Table 1. Suggestions for the improvement of the Nephrological Card (thematic analysis).

THEME	QUOTATION
Integration of the NC into GPs' management software	<ul style="list-style-type: none"> Add NC to our software is a very important step to do. This will make it easier for clinicians to fill out and share patients information with kidney specialists. It lets clinicians keep track of blood tests over a patient's life. This helps to spot kidney problems or anemia early on.
New NC features	<ul style="list-style-type: none"> In the future version, we want a tool to measure kidney function accurately. We need clearer warnings about drugs that can harm the kidneys. The NC should have simple 'YES/NO' answers. Questions should highlight important alerts automatically. Add information about patient comorbidities