National Institute for Health Research

The University of Manchester

Chronic Kidney Disease/Hypertension project

Central Manchester CCG

Ardwick and Longsight Locality and Gorton and Levenshulme Locality

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Executive Summary

A chronic kidney disease (CKD)/hypertension project commenced in July 2015 in the Ardwick and Longsight locality and Gorton and Levenshulme locality of NHS Central Manchester Clinical Commissioning Group (CCG). Of the **12** practices in these localities, **5** participated in the project. Two practices agreed to participate but could not start the project until 2016, therefore their data is not presented in this report. The project aimed to increase the accuracy of CKD coding and improve the management of this patient population.

The IMPAKT™ CKD tool, consisting of a series of MiQuest queries, was installed on each practice system. Two lists of patients were produced; one to verify the existing register, and the other to identify patients who may have CKD but were not coded as such.

Facilitators from National Institute for Health Research Collaboration for Leadership in Applied Health Research and Care Greater Manchester (NIHR CLAHRC GM) visited practices regularly to provide support throughout the project; offering advice on register work and implementing systems and protocols within the practice. Furthermore, a CKD education workshop was provided in November 2015.

The key findings were:

- Objective one aimed to halve the gap between recorded and estimate prevalence (using the QICKD modelling tool). Practices identified an additional **47** patients with CKD who had not been previously coded, achieving.
- Baseline prevalence was **3.63%,** at the end of the project this increased to **3.77%** and increase of **0.14%.**
- For objective 2, practices were tasked with testing 75% of CKD patients for proteinuria and managing them to NICE blood pressure (BP) guidance. Collectively in the 5 participating practices, **49.8%** of CKD patients with an ACR test within the previous 15 months had their latest blood pressure to target in the previous 12 months.
- **93.8%** of all patients on the CKD register (stage 3-5) had a result for BP recorded, whether to target or not, in the previous 12 months. Of those with an ACR test in the past 15 months, **99.5%** CKD patients also had a BP reading in the last 12 months.
- At the end of the project, **57.8%** of CKD patients were tested for proteinuria in the previous 15 months**.** This is lower than at baseline suggesting that ACR testing has not become part of routine annual reviews.

In response to these findings, the following recommendations are suggested as options to further improve the good work conducted during this project:

1. Practices could re-run the IMPAKT™ CKD/ tool, or our project-specific MiQuest queries, on a regular/annual basis to facilitate maintaining an accurate CKD register.
2. Practices to recode CKD registers with new CKD QOF codes and ACR levels on an ongoing basis.
3. Practices to continue to recall patients for ACR testing, according to NICE guidance (2), which can be supported using the information provided by CLAHRC in the CKD Improvement Guide.
4. It may be helpful for the CCG to provide practices with a regular/annual update on CKD/hypertension, which could be reinforced during workshops in their annual calendar of events.
5. There may be utility in continuing to promote improvement teams/champions in each practice, as the skills and enthusiasm of the team members who participated in this project could be transferred to other activity and shared wider.
6. Improvement teams should be encouraged to promote a sense of 'shared clinical ownership' for the diagnosis and management of CKD across the practice.

1. INTRODUCTION

Chronic kidney disease (CKD) is increasingly recognised as a global public health problem, affecting an estimated 6% of adults (stages 3-5) in the UK (1). There are very few symptoms associated with CKD, so the emphasis needs to be on early identification and ongoing management to prevent progression of the disease (2). Research has shown however that there is a sizeable confidence gap in the diagnosis and general management of CKD patients in comparison with other more established chronic disease pathways such as diabetes (3). This results in a lack of clarity on best care for the CKD patient population, significant practice to practice variation, lack of communication with patients about their diagnosis and suboptimal ongoing management. However, if CKD is identified early enough, there is the potential to delay or prevent development of established disease in many people by improved management of their condition. CKD is rarely seen in isolation, rather it is often found in association with other co-morbidities (4), and as such needs to be considered in the context of maintaining broader vascular health (5,6,7). CKD also greatly increases the risk of suffering a stroke, heart attack, renal failure and death (4). A 2003 retrospective analysis of all patients newly diagnosed with CKD, found that 35% had died within five years, 46% of which were cardiovascular related (4). Another study identified and subsequently treated 483 patients with CKD stage 4 and 5, in doing so, they estimated they had prevented 28 deaths (8).

The current spend on CKD and related problems represents a large financial burden for the National Health Service (NHS). Programme budgeting data from NHS England showed that Clinical Commissioning Group (CCG) expenditure on renal problems was approximately £587 million in 2013/14 (9). The potential for cost saving therefore is significant. In the Whitfield study (8) it was estimated that earlier identification and treatment resulted in an estimated saving of 97 dialysis years over five years (with a projected cost saving of £2.7m) by slowing disease progression. In a report published by NHS Kidney Care in 2012, it was estimated that in 2009/10 approximately 95% of spend on renal problems was in secondary care, and 5% in primary care. This proportional split is representative across England (10). Yet it is within primary care that this early-stage CKD preventative/improvement work needs to be addressed.

The total renal spent in Central Manchester CCG during 2013/2014 was £2,488,281 (9). Of this:

- £958,000 being spent on scheduled care
- £956,000 was spent on unscheduled care
- 343,000 was spent on unbundled care
- £135,281 was spent on primary prescribing
- £63,000 was spent on running costs
- £33,000 was spent on community care

We, the National Institute for Health Research Collaboration for Leadership in Applied Health Research and Care Greater Manchester (NIHR CLAHRC GM), recently conducted a CKD audit across Greater Manchester and Eastern Cheshire (with a 60% coverage rate) in collaboration with the

Greater Manchester Academic Health Science Network (GM AHSN) (11). It estimated that across the region there were 16,483 uncoded patients that could be diagnosed with CKD immediately, and 43,027 who warranted further investigation for CKD based on previous low estimated Glomerular Filtration Rate (eGFR) readings. Furthermore, of the 312 practices audited, 28 - 35% of recorded cases of CKD stages 3-5 were not managed to 2008 National Institute for Clinical Excellence (NICE) CKD guidelines (i.e. did not have a measurement of proteinuria status and/or blood pressure recorded in the 12 months preceding the audit). In Central Manchester, a practice coverage rate of 58% was achieved. The estimated CKD prevalence (stages 3-5) for Central Manchester CCG lower than Greater Manchester (GM) region as a whole, with a rate of 7.1% and 4.62% respectively; although significant numbers of patients remain undiagnosed and suboptimally managed.

Over the last six years NIHR CLAHRC GM has been supporting GP practices across the region to improve the accuracy of CKD coding and management of this patient population. With a confidence gap amongst primary care clinicians being recognised as a key issue in the management of CKD, this work also aimed to raise professional awareness of CKD and to provide primary care teams with the knowledge and skills to facilitate ongoing sustainable change in practice. This CKD/hypertension improvement project was established in partnership with Central Manchester CCG and NIHR CLAHRC GM in 2013, with the overarching aim to improve the quality and management and care for people with CKD. This report presents the results from Central Manchester CCG's Ardwick and Longsight and Gorton and Levenshulme localities, completed between 15 months.

2. METHODS

2.1 Project Objectives

The CKD/Hypertension project had the overarching aim of improving the coding and care for people with CKD. Two specific objectives were set for practices to work towards:

- Objective 1: To halve the gap between recorded and estimated prevalence on practice registers.
- Objective 2: 75% of CKD patients to be tested for proteinuria and managed to NICE blood pressure (BP) targets at project close.

2.2 Clinical Measures/Targets

CKD became part of the Quality and Outcomes Framework (QOF) in 2006, with NICE CKD guidelines following in 2008 which were subsequently updated in 2014 (2).

The target for objective 1 was calculated using the CKD register size for each practice mapped against prevalence estimations (see section 2.3.2).

For Objective 2, the BP targets were based on NICE guidelines (CG182) (2), which specified different BP targets for patients depending on their ACR test result and diabetes status (Table 1). As the QOF target for ACR testing was retired in April 2015 a frequency of ACR testing in the previous 15 months was used for analysis. At final data count the BP targets were kept in accordance with NICE guidelines and the ACR testing period was January 2015 to March 2016.

Table 1: Extract from NICE CKD Guidelines ACR monitoring and BP control (2)

1.3.1 Agree the frequency of monitoring (eGFRcreatinine and ACR) with the person with, or at risk of, CKD; bear in mind that CKD is not progressive in many people. [new 2014]
1.6.1 In people with CKD aim to keep the systolic blood pressure below 140 mmHg (target range 120–139 mmHg) and the diastolic blood pressure below 90 mmHg.
1.6.2 In people with CKD and diabetes, and also in people with an ACR of 70 mg/mmol or more, aim to keep the systolic blood pressure below 130 mmHg (target range 120–129 mmHg) and the diastolic blood pressure below 80 mmHg.

Table 2: List of CKD indicator changes for QOF 2015/16 (2)

Previous indicator code	New indicator code	Indicator wording	Changes
CKD001	CKD005	The contractor establishes and maintains a register of patients aged 18 or over with CKD (US National Kidney Foundation) stage 3 to 5	Wording change
CKD002	-	The percentage of patients on the CKD register in whom the last blood pressure reading (measured in the preceding 12 months) is 140/85 mmHg or less	Retired
CKD003	-	The percentage of patients on the CKD register with hypertension and proteinuria who are currently treated with an ACE-I or ARB	Retired
CKD004	-	The percentage of patients on the CKD register whose notes have a record of a urine albumin:creatinine ratio (or protein:creatinine ratio) test in the preceding 12 months	Retired

2.3 Project Design

The project consisted of a series of interlinked activities. Figure 1 provides an overview of the stages.

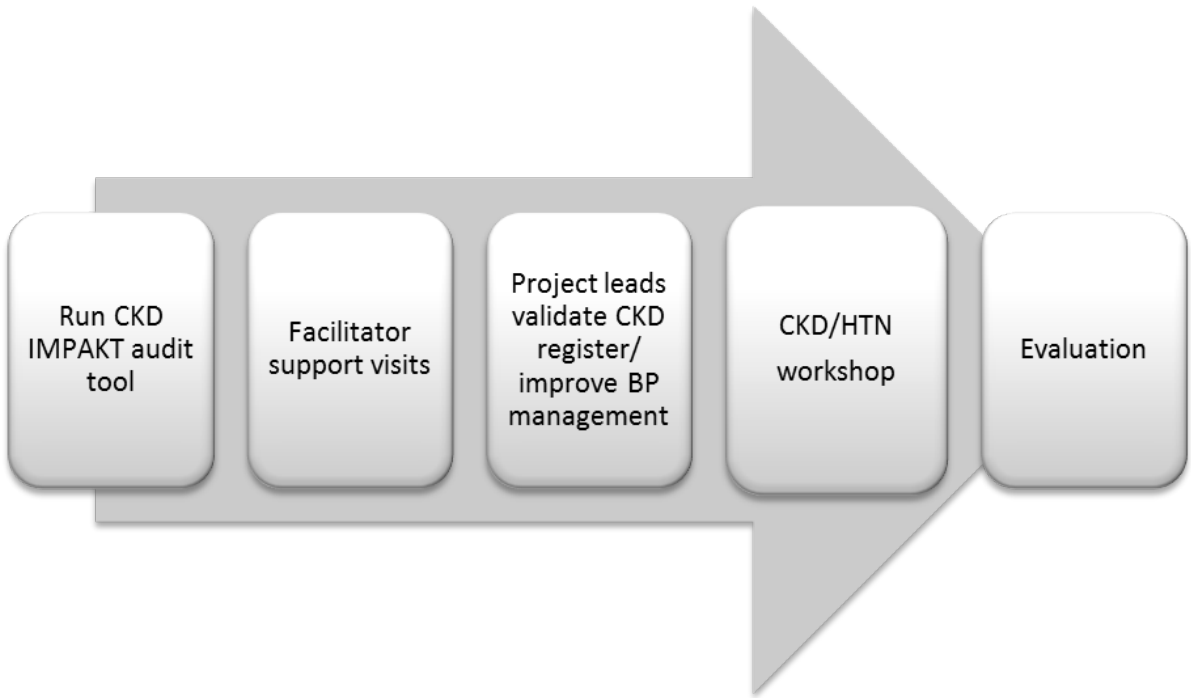

Figure 1 Project stages

2.3.1 Prevalence Estimation

In the first phase of the project, the Quality Improvement in Chronic Kidney Disease (QICKD) modelling tool was used to estimate the expected prevalence using the over 18 years age/sex profile for each practice. This tool was developed by Bradford Primary Care Trust (PCT) using the outcomes of the QICKD study (12). These estimated figures provided a prevalence target for practices to work towards.

2.3.2 IMPAKT™ CKD Audit Tool

IMproving Patient Care and Awareness of Kidney disease progression Together (MPAKT™) is a MiQuest based audit tool that extracts data from primary care clinical systems. Two lists of patients are produced; the first includes recommendations for patients who may have been coded with CKD in error or inaccurately coded in relation to stage of CKD (i.e. register verification), the second identifies patients not on the CKD register but who had recorded eGFRs indicative of CKD and those requiring further investigation (i.e. case finding).

The tool was installed at each Central Manchester practice. In addition to the expertise of the NIHR CLAHRC GM facilitation team, the IMPAKT™ CKD improvement guide was also provided to

practices to support this work. The guide contains resources such as CKD Read codes, protocol examples and templates of invitation letters to use when recalling patients for diagnostic tests.

2.3.3 Register Verification and Case Finding

At an initial meeting, each practice was asked to select an improvement team (ideally including a mix of staff disciplines, usually involving a lead GP, practice nurse and admin team member). Subsequently, the NIHR CLAHRC GM facilitation team continued to meet with practice improvement teams on a regular basis to support register validation and case finding work. The frequency of visits was largely driven by the practices themselves, and dependant upon their progress and staff availability etc.

Each practice worked through the lists of patients generated by the IMPAKT™ tool. In order to validate the existing CKD register, case find and improve BP management (see Table 1) the following actions were required:

- Patients coded with CKD in error were removed from the register.
- CKD stage coding was updated where necessary based on latest eGFR data (see Table 3).
- Patients found to have eGFRs indicative of CKD, but were not coded on the register were investigated in order to diagnose or exclude CKD.
- CKD patient records were checked to ensure they had an ACR test (see Table 4 for values).
- Requests were made for further diagnostic tests where necessary.
- Patients with proteinuria were identified (based on ACR testing) and coded accordingly.
- CKD protocols were updated and developed.

Table 3: Extract from NICE CKD Guidance GFR categories (2)

GFR category	GFR (ml/min/1.73 m 2)	Terms
G1	>90	Normal or high
G2	60–89	Mildly decreased*
G3a	45–59	Mildly to moderately decreased
G3b	30–44	Moderately to severely decreased
G4	15–29	Severely decreased
G5	<15	Kidney failure

* Relative to young adult level
Abbreviations: CKD, chronic kidney disease; GFR, glomerular filtration rate
Reprinted with permission from Kidney Disease: Improving Global Outcomes (KDIGO) CKD Work Group (2013) KDIGO 2012 clinical practice guideline for the evaluation andmanagement of chronic kidney disease. Kidney International (Suppl. 3): 1–150

Table 4: Extract from NICE CKD Guidance ACR values (2)

ACR Category	ACR (mg/mmol)	Terms
A1	**<3**	**Normal to mildly increased**
A2	**3 - 30**	**Moderately increased***
A3	**>30**	**Severely increased****

* Relative to young adult level

** Including nephrotic syndrome (ACR usually >220 mg/mmol) Abbreviations: ACR, albumin:creatinine ratio; CKD, chronic kidney disease

2.3.4 Clinical Education Workshop

An educational workshop was provided by the NIHR CLAHRC GM team in November 2015, led by a renal consultant, to enhance practices' understanding of the importance of early diagnosis and best practice treatment of CKD. The workshop was also used as a forum for practice teams to share learning and good practice. In addition, it provided an opportunity for teams to direct specific questions to experts and feedback on their progress.

2.3.5 Project Timeline

Initial meetings with GP practices took place between August 2015-September 2015. Baseline data collection was undertaken at the same time to estimate practices' prevalence. Alongside these meetings with practices the IMPAKT™ CKD audit tool was installed. End of project data was collected in April 2016.

2.3.6 Final Data Count

In April 2016 a final data count was conducted in each practice. This involved running a set of MiQuest queries to extract patient level data about BP results, ACR testing and CKD coding and the number of patients added and removed during the project.

In April 2015 the QOF indicators CKD002, CKD003 and CKD004 were retired.

3. Results

3.1 Participating GP Practices

The project was offered to all **12** practices in the Ardwick and Longsight and Gorton and Levenshulme localities. Of the **12** practices, **5** participated in the project. A further two practices agreed to participate but could not start the project until 2016, therefore due to the short time

working on the project their data is not presented in this report. All the information required to complete the project has been provided so the two practices can complete the work. One practice agreed to participate but later withdrew due to pressures of work. Four practices did not want to take part.

3.2 Predicted Prevalence

The baseline prevalence of CKD was predicted based on the practice register size using the QICKD tool (see section 2.3.1), this was compared to the actual figures from each practice (Table 5). Overall, the baseline prevalence was **3.63%** with a target prevalence of **3.66%** (which is 50% of the estimated CKD prevalence, as objective 1 aimed to *halve* the gap between recorded and estimated prevalence). Collectively, the **5** practices needed to identify an additional **9** patients to achieve this target.

Table 5 Baseline data and prevalence target modelling using the QICKD tool

Practice	Baseline Population 18+	Baseline Prevalence	Baseline CKD register	Target Prevalence [a]	Target CKD Register [b]	Patients to Find [c]
Ashcroft Surgery	5,955	4.06%	242	3.83%	228	-14
Hawthorn MC	3,708	0.65%	24	0.92%	34	10
Levenshulme MC	5,285	3.56%	188	3.97%	210	22
West Gorton MC	4,834	5.46%	264	5.30%	256	-8
Mount Road Surgery	5,230	3.63%	190	3.61%	189	-1
Total	25012	3.63%	908	3.66%	917	9

a. Target prevalence (%) – to halve the gap between baseline and estimated prevalence.
b. Target CKD register (3-5) – target size of the CKD register per practice on completion of the project.
c. Number of patients to find - change needed to halve the gap between the baseline and estimated prevalence and achieve the target prevalence in accordance with objective 1.

Key to practice identities

Table 6 Key to practice identities:

P84016	**LEVENSHULME MEDICAL PRACTICE**
P84050	**MOUNT ROAD SURGERY**
P84052	**WEST GORTON MEDICAL PRACTICE**
P84053	**ASHCROFT SURGERY**
Y02890	**HAWTHORN MC**

3.3 Objective 1

Objective 1 was to halve the gap between the recorded and the estimated CKD prevalence. To meet objective 1, the 5 practices collectively had to find an additional **9** patients to add to their CKD registers.

At the start of the project, the number of patients on CKD registers for the 5 practices was **908** patients, with a prevalence of **3.63%**. At project end, this figure had increased to **955** patients, with the prevalence rising to **3.77%.** The additional **47** patients coded with CKD represent an increase in prevalence of **0.14%**.

Two practices achieved their individual prevalence targets and the majority of the remaining practices were close, although the number of patients to be added per practice ranged significantly (from **-14** to **+22)**. It is important to highlight that in order to verify registers, practices also had to remove patients who were incorrectly coded, therefore the total number of new patients identified is actually higher than these overall target figures. Figure 2 shows the change in number of patients on each practice register at baseline (August 15 - September 15), and at the end of the project (March 2016), and the target.

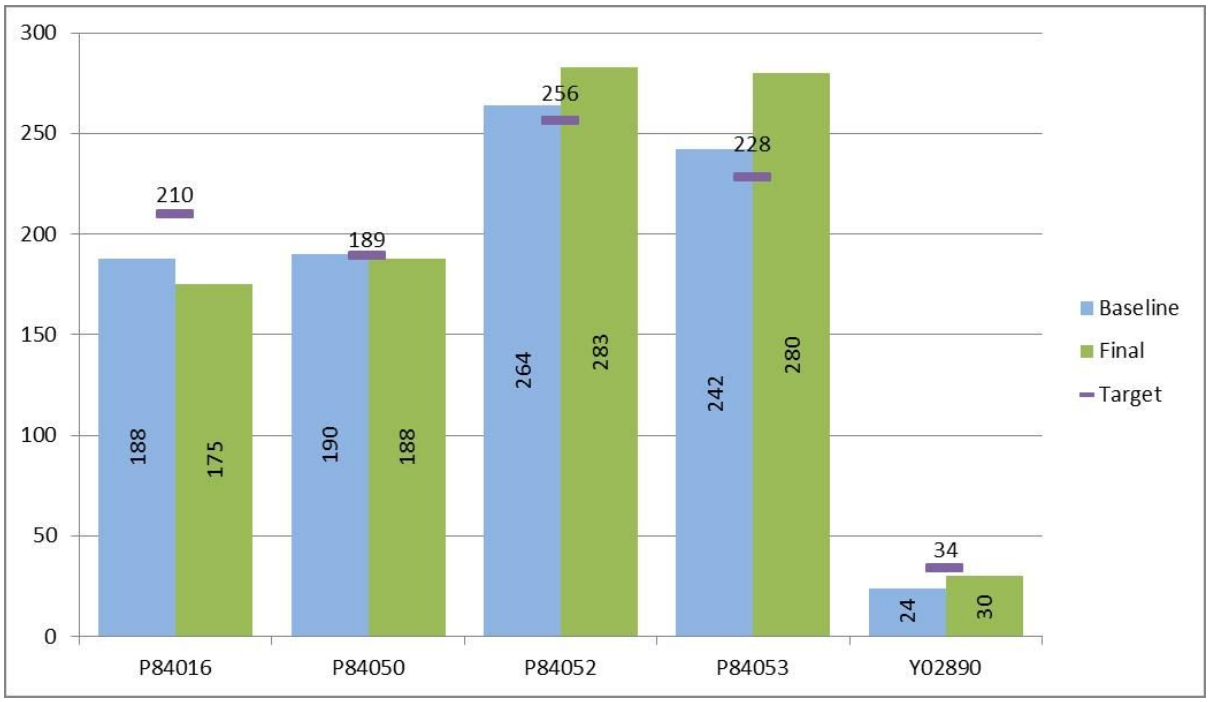

Figure 2 The number of patients on CKD registers at baseline, interim and final data counts

Figure 3 details the number of patients added and removed from practice's CKD registers between baseline and final data collection point. A total of **126** patients were identified and added to CKD registers and **78** patients were removed. For example, practice P84016 added **21** patients but also removed **34** inaccurately coded patients, resulting in an overall loss of **13** patients from the register. Therefore although the prevalence target was not reached in this practice, the accuracy of the register was improved.

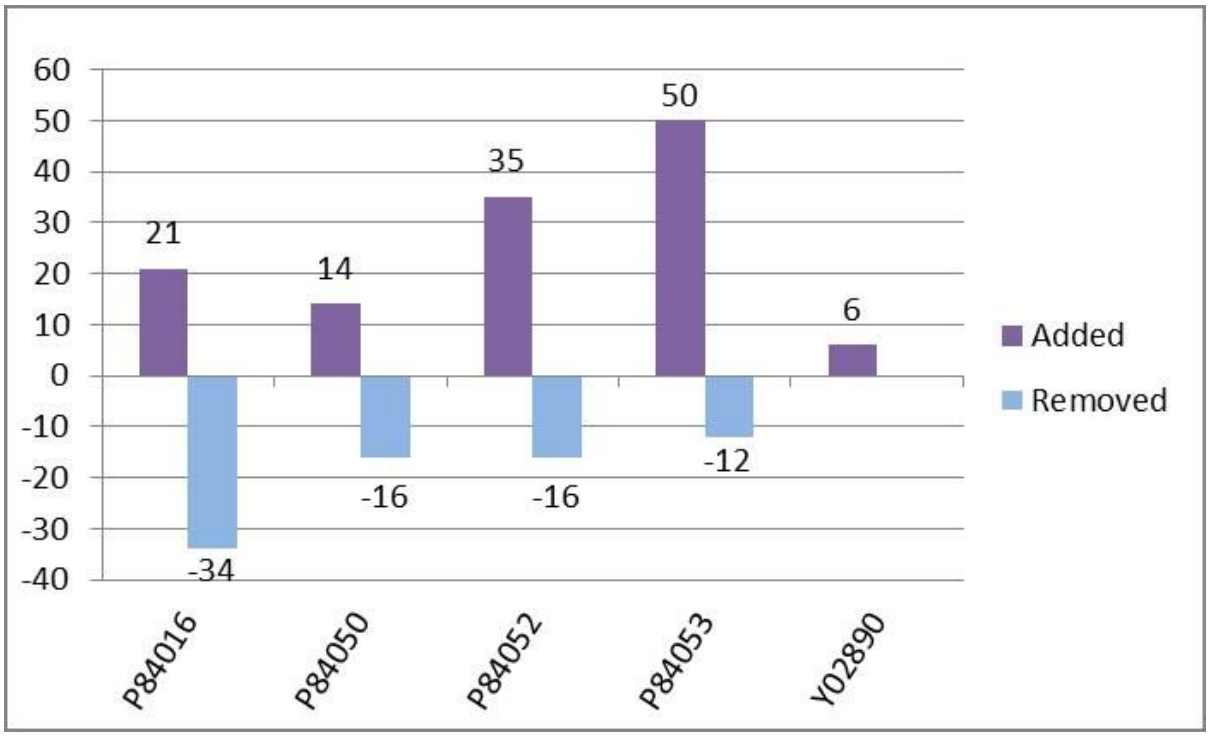

Figure 3 The number of patients added and removed from CKD registers during the project

3.4 Management

The data below shows information about: proteinuria testing, BPs to target broken down by coded with/without proteinuria and diabetes, achievement of objective 2 (ACR tested in the previous 15 months and BP to target), BP management of proteinuria patients per practice and BP management of diabetic CKD patients per practice.

3.4.1 Proteinuria Testing

The percentage of patients ACR tested at baseline was **80.5%**, this dropped to **57.8%** by the end of the project (Figure 4)**.** The proportion of patients ACR tested in all 5 practices decreased suggesting that ACR testing has not become part of routine annual reviews.

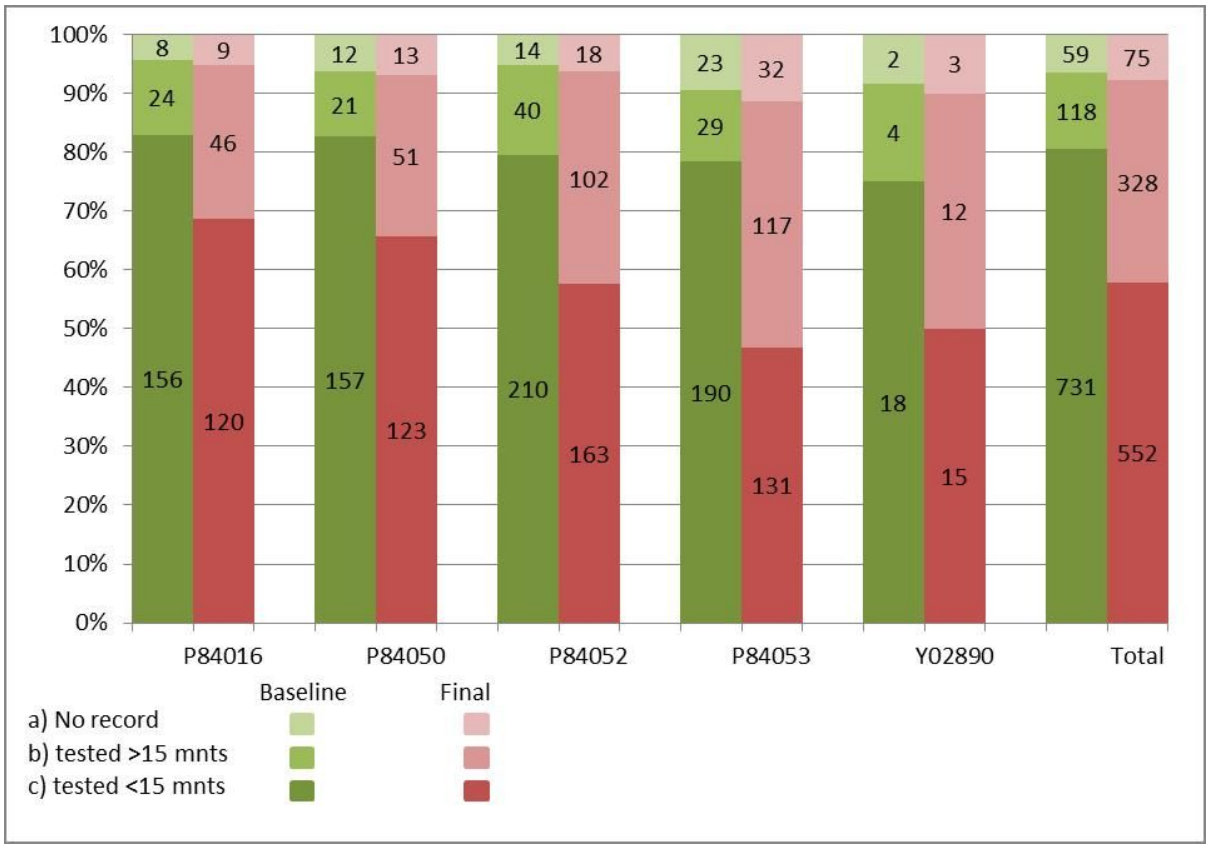

Figure 4 Proportion of CKD patients with a) ACR test status unknown, b) ACR tested prior to the last 15 months, and c) tested in the previous 15 months. Percentages are relative to register size at the given time point.

3.4.2 Blood Pressure to Target

Overall in the 5 practices, **50.7%** of CKD patients achieved target BPs on the last reading within the previous 12 months by the end of the project (Figure 5).

The rate differed however depending on the patient cohort; **31.8%** of patients with diabetes achieved target BPs, **38.6%** of CKD patients coded 'with proteinuria', and **52.5**% of CKD patients coded 'without proteinuria' (see Figure 5). Patients with diabetes and patients with proteinuria with an ACR of ≥70 mg/mmol, are higher risk, and therefore have a stricter target BP (see Table 1).

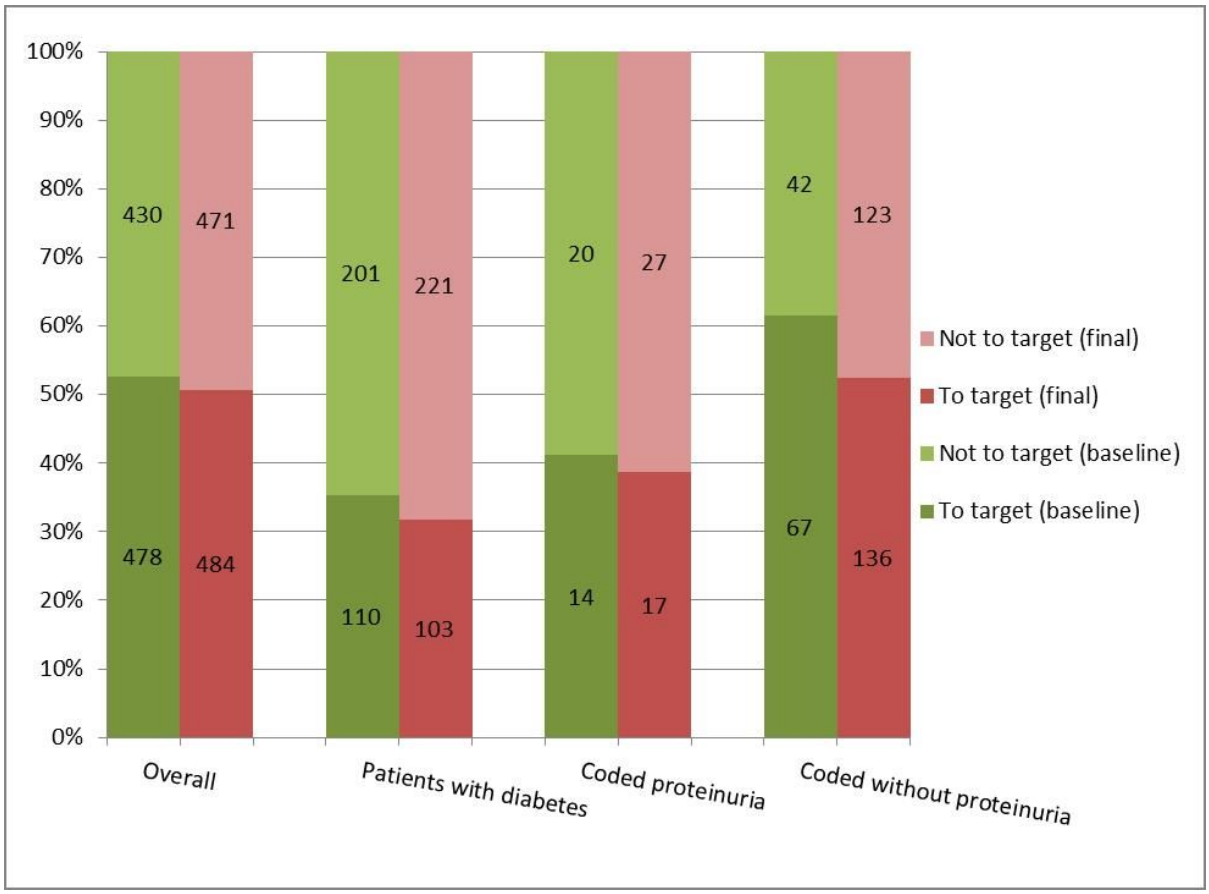

Figure 5 Percentage of patients with last BP to target in the previous 12 months at baseline and final data counts

93.8% of all patients on the register (stage 3-5) in these practices had a result for BP recorded, whether to target or not, in the previous 12 months. Of those with an ACR test in the past 15 months, **99.5%** of Central Manchester CCG CKD patients also had a BP reading in the past 12 months, higher than the **93%** reported for Greater Manchester and Eastern Cheshire as a whole in a recent audit (11).

3.4.3 Objective 2 - CKD patients ACR tested and with a BP to target

NICE advises that patients should not only be tested for proteinuria, but also have their BP managed accordingly (2). For patients with high ACR values (ACR of ≥70 mg/mmol) and patients with diabetes the target BP is <130/80 mmHg, whereas those who have an ACR below 70 mg/mmol the target BP is <140/90 mmHg (Table 1). Therefore, patients need 1) an ACR test in the previous 15 months and also 2) a documented BP to NICE guidelines to achieve objective 2.

At the final data count, the number of patients tested for proteinuria in the previous 15 months, with a BP to target, at the last reading was **49.8%** (See figure 6)**.** This represents a decrease of **3.0%**.

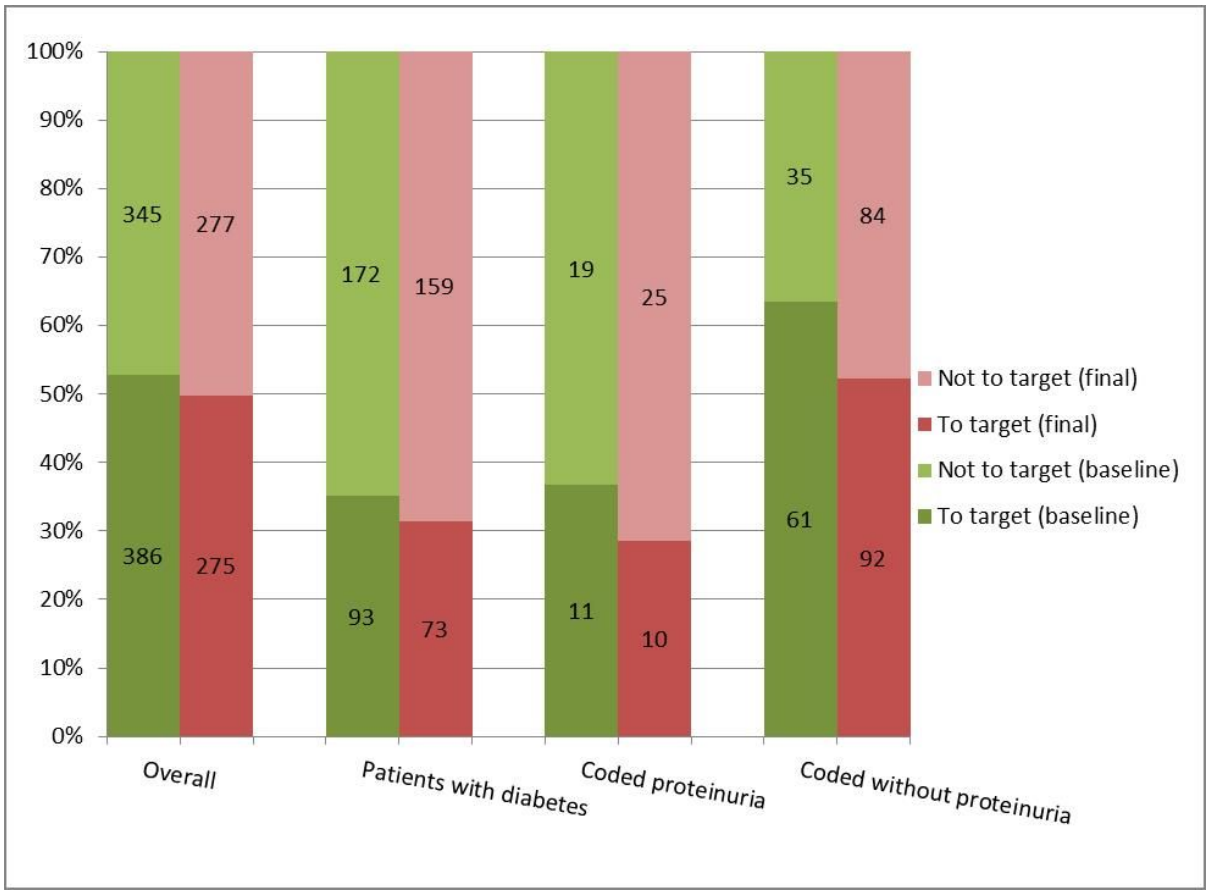

Figure 6 Percentage of patients with an ACR test in the past 15 months, who had a BP to target at last reading

3.4.4 BP Management of CKD patients with coded 'with Proteinuria'

At the end of the project there were a total of **44** CKD patients coded 'with proteinuria' on practice registers. Figure 7 shows the number of patients in this cohort with blood pressures managed to NICE guidelines (2)**.** It is important to highlight that in some practices the numbers of patients coded with proteinuria was low (ranging from **1** patient to **19** patients). Overall **22.7%** of these patients were managed to nice NICE guidance (2). This figure is comparable to the results for Greater Manchester and Eastern Cheshire as a whole (11), that showed only **29%** of patients with CKD and coded 'with proteinuria' had BPs to NICE (2) targets.

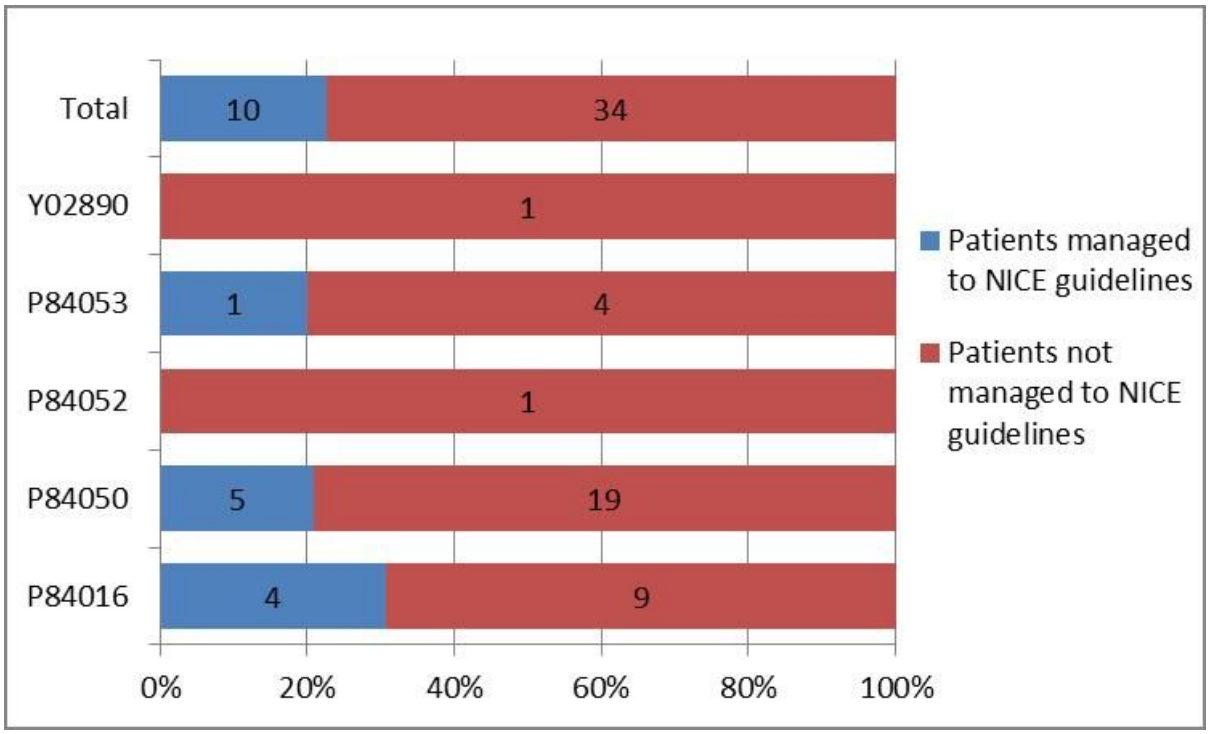

Figure 7 The number and percentage of CKD patients with coded 'with proteinuria' with BPs managed to NICE targets

3.4.5 BP Management of CKD Patients with Diabetes

The analysis from prospective clinical trial shows that a lower level of diastolic BP for patients for patients with diabetes results in a reduction in cardiovascular events and slows the decline in renal function (13,14,15). Lower BP targets in patients with diabetes also reduces their cardiovascular risk (14,15,16). 2014 Nice guidance (2) recommends stricter BP (**130/80**) control for CKD patients who also have diabetes. Figure 8 shows the breakdown per practice for CKD patients with diabetes managed to NICE guidance (2). The percentage of patients with CKD and diabetes patients managed to target varied between **19.5%** and **24.7%** with an overall total of **22.5%** of patients to target.

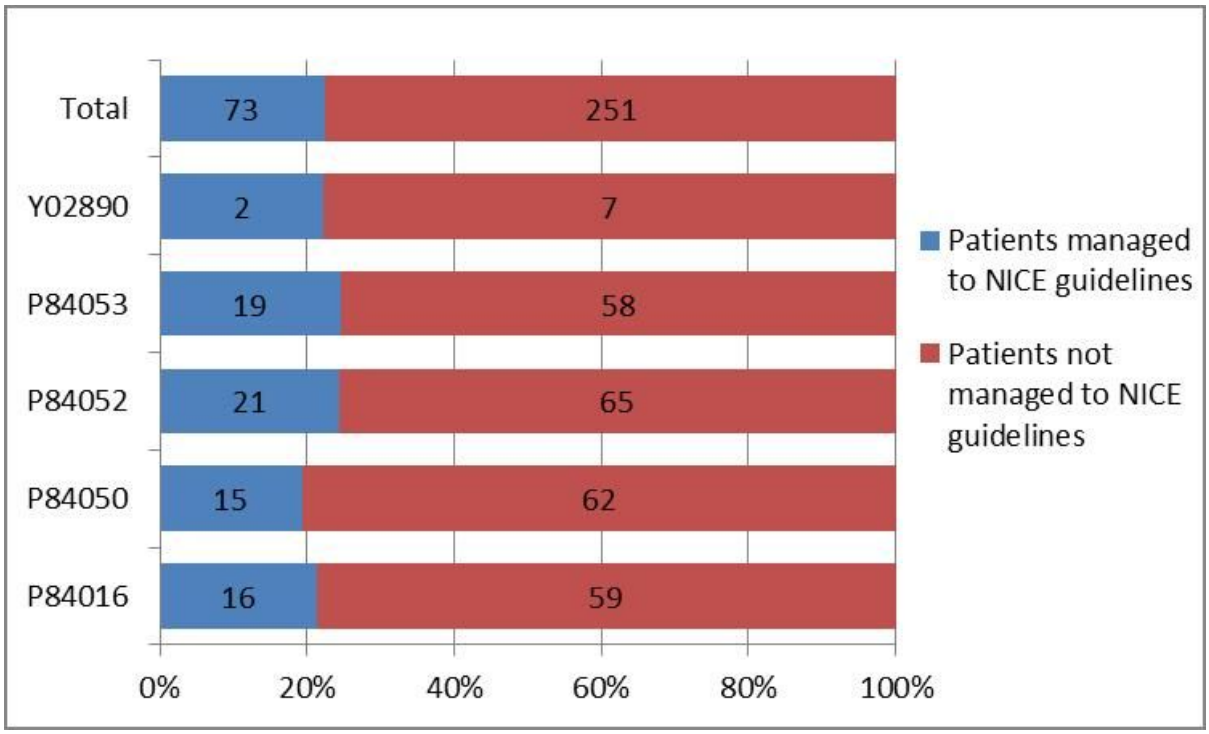

Figure 8 The number and percentage of CKD patients with diabetes managed to NICE target (2)

4. Discussion

In April 2015 three of the four QOF indicators (Table 2) were removed, related to; the percentage of CKD patients with blood pressures to a target of <140/85 mmHg, the percentage of patients on the CKD register with hypertension and proteinuria treated with an angiotensin converting enzyme inhibitor (ACE-I) or an angiotensin ll receptor antagonist (ARB), and also the percentage of patients on the CKD register ACR tested in the previous 12 months. The remaining CKD-related QOF indicator was to simply maintain a CKD register. The anecdotal feedback from practices suggests that this change combined with competing priorities was a significant driver in their decision not to participate in the project. In light of this, it is anticipated that this may also have had an impact on the extent of activity in the practices who continued to engage. The limited improvement observed during this project for objective 2, compared to previous experience delivering this piece of work in other areas, suggests that removal from QOF was perhaps premature and ACR testing had not become part of routine annual reviews.

NICE guidance (2) does not stipulate the frequency of ACR testing, but instead recommends that this is decided in consultation with GPs and individual patients. However, the removal of the QOF indicators and the introduction of a more flexible frequency for ACR testing in the 2014 amendments to NICE guidance (2) allowed practices to make a clinical decision about when to test patients. Therefore GPs may have decided to test patients outside the 15 month target used in this report. The percentage of CKD patients with proteinuria with BPs to target in Central Manchester CCG is comparable to all previous CLAHRC CKD projects (17) and also when compared

to the rest of the Greater Manchester and Eastern Cheshire region and suggests further work is needed to identify the reason for this (11). Practices identified and added a significant number of patients with proteinuria to registers almost doubling the numbers. It is likely that due to the difficulty in managing BP in this group of patients practices were in the process of commencing or up titrating medication at the end of the project which is not captured in the data.

5. Conclusions

The CKD/Hypertension project in Central Manchester CCG has raised awareness of CKD and educated healthcare professionals in the importance of managing the condition effectively. It has been successful in identifying a significant number of additional patients with CKD who were previously undiagnosed, allowing their ongoing care needs to be better monitored. The work has also highlighted areas of CKD management which would benefit from improvement. The main conclusions which can be drawn from this project are:

- An additional **126** patients were added to CKD registers, resulting in a closure between the actual and estimated prevalence figures and improving accuracy of CKD registers.
- **49.8%** of CKD patients with an ACR test in the previous 15 months had a BP to target at the last reading - an area that would benefit from further improvement.
- For CKD patients coded 'with proteinuria' (Table 1) **22.7%** had BPs managed to NICE targets in the previous 12 months (2).
- For patients with CKD and diabetes **22.5%** had blood pressures managed to NICE guidance in the previous 12 months (2).

6. Recommendations

The following recommendations are suggested in an attempt to continue to improve the management of CKD and also to sustain the progress made so far:

- Practices could re-run the IMPAKT™ CKD tool, or our project-specific MiQuest queries, on a regular/annual basis to facilitate maintaining an accurate CKD register.
- Practices to recode CKD registers with new CKD codes and ACR levels on an ongoing basis.
- Practices to continue to recall patients for ACR testing according to NICE guidance (2), which can be supported using the information provided by CLAHRC in the CKD Improvement Guide.
- It may be helpful for the CCG to provide a regular/annual update on CKD/hypertension that could be reinforced during workshop in their annual calendar of events.
- There may be utility in continuing to promote improvement teams/champions in each practice, as the skills and enthusiasm of the team members who participated in this project could be transferred to other activity and shared wider.

- Improvement teams should be encouraged to promote a sense of 'shared clinical ownership' for the diagnosis and management of CKD across the practice.

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