# UK NATIONAL SCREENING COMMITTEE

## Policy Review

## Screening for Glomerulonephritis

### 10 March 2011

## Aim

1. To agree the UK National Screening Committee's (UK NSC) formal policy position on screening for glomerulonephritis.

## Background

2. A review of screening for glomerulonephritis against the UK NSC criteria for appraising the viability, effectiveness and appropriateness of a screening programme was carried out in July 2010 by Dr Cathy Lines from Solutions for Public Health. A brief review of screening for glomerulonephritis was carried out in February 2002 by Dr Steven Laitner and concluded that the UK NSC should not recommend screening for glomerulonephritis. In October 2009 a knowledge update (Coles 2009) was carried out to determine if any further, relevant studies were published between January 2001 and September 2009. A total of 7047 references were identified by the search strategy of which 181 were deemed to be relevant. Evidence from the initial review by Laitner (2002) and relevant papers identified by the knowledge update formed the basis of this review.

3. The review concluded that there has been a strong focus on early identification of chronic kidney disease (CKD) including glomerulonephritis over the past few years. However, there are still significant aspects of the condition and its management with little robust evidence to indicate that a screening programme would be effective. Evidence from screening programmes and studies from around the world indicate that a general population based screening programme to afford the early detection of CKD which includes glomerulonephritis is not cost or clinically effective (Boulware et al 2003, Powe & Boulware 2009, Hallan *et al* 2006). International guidance recommends that a targeted screening programme aimed at people with diabetes, hypertension and cardiovascular disease should be implemented with the use of a urine test for proteinurua and a blood test for creatinine to estimate glomerular filtration rate (Levey *et al* 2007).

4. The review stated that there have been no randomised controlled trials assessing the effectiveness of a screening programme in reducing the mortality and morbidity from glomerulonephritis. The treatments for glomerulonephritis show some effectiveness but the evidence is limited and more effective treatments need to be developed and tested. There is no direct evidence of acceptability of the test or follow up investigations to the UK population.

5. The National Institute for Health and Clinical Excellence (2008) have recommended that case finding for wider CKD and glomerulonephritis in primary

care should be optimised however it is not clear how effective that will be in identifying significant numbers of cases. The review said that the NHS Health Check in England is in the process of being implemented which will, through its monitoring of hypertension, also identify a proportion of glomerulonephritis cases. However, the targeting of CKD detection through screening for diabetes, hypertension and cardiovascular disease will not pick up the proportion of people with glomerulonephritis who present only with proteinuria or haematuria. The review stated that data from the NHS Health Check should be used to assess how effective the programme is in identifying different types of CKD including glomerulonephritis. This will help to inform further reviews. If the NHS Health Check is considered to be the best way to identify people with CKD and glomerulonephritis then further reviews should consider whether a more specific test of kidney function should be used rather than hypertension.

6. The review recommended that when the screening policy for CKD and glomerulonephritis are next updated they should be combined into one review.

## Consultation

7. A copy of the review of screening for glomerulonephritis against the UK NSC criteria was placed on the UK NSC website for consultation on 1st October 2010. The consultation closed on 3rd January 2011. Two replies were received on the review of screening for glomerulonephritis. Both replies were supportive of the review's recommendation and are available at Annex A.

## Recommendation

8. The UK NSC is asked to agree the policy position on screening for glomerulonephritis as follows:-

*A national screening programme for glomerulonephritis is not recommended.*

9. The UK NSC is asked to agree that the policy should be reviewed in three years time unless there is significant new peer reviewed evidence in the meantime. The review should also be combined with the review of screening for CKD.

**Annex A**

## Consultation Replies

### Renal Association and UK Kidney Research Consortium Glomerulonephritis Clinical Study Group

**Professor Lorraine Harper**
**School of Immunity and Infection, University of Birmingham**

In general the Glomerulonephritis (GN) Clinical Study Group is largely supportive of the document "**Appraisal for screening for Glomerulonephritis** " and supports the view taken by UK NSC that screening for GN should not be recommended.
The document clearly states that GN, such as nephritic syndrome and rapidly progressive GN often present acutely making it unlikely these diseases would be effectively identified through screening. For those with other forms of GN, those at risk of progression will mostly be hypertensive and will be picked up by the NHS healthcheck when it's introduced. Screening for hypertensive individuals will include urinalysis and eGFR testing.

For those under 40 (outside healthcheck range) the sensitivity of diptest screening is poor and ACR/PCR screening is unlikely to be cost-effective, as described in the document. Also the GNs picked up in asymptomatic patients are largely untreatable and therefore the value of early detection is unproven. As a group we are not in favour of screening for GN.

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**David Milford**
**Chair**
**Clinical Standards and Guidelines Committee of the British Association for Paediatric Nephrology**

The Clinical Standards and Guidelines committee of the British Association for Paediatric Nephrology looked at this document on 26th October 2010 and agree with the recommendation not to screen.

Renal Registry data (December 2009 report) shows just under 20% of the end stage renal disease stock of 559 patients under 16 years of age had a diagnosis of glomerulonephritis as the cause of their renal disease. There will, of course, be others who do not have end stage kidney disease but we are not aware of epidemiological data to estimate how many patients with glomerulonephritis and normal or reduced GFR are under follow-up in paediatric centres. However, I have looked at biopsy activity in my centre (Birmingham Children's Hospital) for 2009 and counted 20 patients who had a renal biopsy for what could have been nephritis (ie haematuria, proteinuria, both haematuria and proteinuria, HSP, complement abnormalities etc). We serve a population of about 6 million so this suggests there may be somewhere in the region of 200-250 children in the UK who undergo renal biopsy each year for a suspected diagnosis of GN. This number, of course, does not include children in the community who have glomerulonephritis and who have not been diagnosed but we felt the number of such children is likely to be small. The question is does this number of patients warrant a universal screening programme in the UK, bearing in mind the requirements for a successful screening programme. We know the Japanese have had a screening programme for school children but no other country has adopted a similar scheme and much of the pick up in Japan is microscopic haematuria from IgAN which is commoner there anyway.  Following discussion of these points it was agreed that in view of the likely small number of cases there is no indication to screen healthy UK children for unsuspected glomerulonephritis.