CHF | Full study | Control | 598 (10.3) | 13.3
AF | Full study | Control | 460 (7.9) | 11.5
CV death | Full study | Control | 285 (4.9) | 6.2

### Results:
- The number of renal biopsies performed at tertiary hospitals in Gauteng, South Africa between 1 January 2015 to 31 December 2019. Of 1513 biopsies, 43 were crescentic glomerulonephritis (4.38%).
- The average age was 30.7 years, with 13 male and 30 female patients. The patients comprised of 38 black, 2 Indian, 2 white and 1 mixed race patient. The majority of them (90.7%) were immune complex mediated, the remainder were ANCA mediated. The underlying cause of the 39 immune complex mediated crescentic glomerulonephritides was lupus nephritis in 32 (82%), post infection glomerulonephritis in 2 (5%), IgA nephropathy in 1 case (2.6%) and 4 (10.2%) with an undetermined underlying cause.

### Conclusions:
- The aetiologies of RPGN vary according to the demographics being studied. In predominantly Caucasian societies the most common cause is ANCA vasculitis. Studies conducted in the 1980s, the most common cause of RPGN was post infectious GN. This contrasts with more recent studies from sub-Saharan Africa. This study yielded similar results with the predominant cause of RPGN being Lupus nephritis in 82 % of the patients followed by post infectious glomerulonephritis in 5 %. This is not surprising as SLE is common in black patients and the change in the pattern of aetiology over the last few decades may be due to improved screening for SLE. The reduction in the cases of RPGN attributable to PIGN is likely to widespread antibiotic use. The prevalence of RPGN ranges between 2 and 10% and in the recent study from Senegal was 5.3 % . This is similar to this study with a prevalence of 4.38%. This study emphasizes the variation in aetiology of RPGN in sub-Saharan Africa over the last four decades.

No conflict of interest

### POS-155

A FIVE YEAR RETROSPECTIVE STUDY TO DETERMINE THE CHARACTERISTICS OF RAPIDLY PROGRESSIVE GLOMERULONEPHRITIS FROM THREE TERTIARY HOSPITALS IN GAUTENG, SOUTH AFRICA

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**Introduction:** Rapidly progressive Glomerulonephritis (RPGN) is a syndrome which was first described in 1942 by Ellis. It is caused by glomerulonephritis which results in rapid decline in renal function over a short period of time. Its histological hallmark is extensive crescent formation. It is a heterogeneous disease with various aetiologies leading to glomerular injury. Recent studies of the characteristics of RPGN in adults in South Africa have been sparse, although there was a recent retrospective study from Paediatric nephrology in Cape Town. A study from Senegal found RPGN in 27.5% of cases, and infectious causes in 17.5% of cases. This differs from aetiologies of RPGN from other parts of the world where the most common cause in ANCA-related vasculitis. The aetiologies were mainly lupus in 32.5% of cases, followed by ANCA-related vasculitis in 27.5% of cases, and infectious causes in 17.5% of cases. This differs from aetiologies of RPGN from other parts of the world where the most common cause in ANCA-related vasculitis.

**Methods:** The number of renal biopsies performed at three tertiary hospitals during the study period were determined. The biopsies with crescentic glomerulonephritis were further scrutinized. The demographic data which includes age, gender, race, and the baseline estimated glomerular filtration rate (eGFR) as determined by the Modified Diet in Renal Disease (MDRD) formula will be collected.

The serological test results of ANA, p-ANCA, c-ANCA, ASOT, anti-GBM antibody, C3 and C4 level were also be recorded. The underlying disease process of each of the RPGN cases were recorded into anti-GBM disease, Immune complex mediated, pauci-immune vasculitis, idiopathic or double antibody disease.

**Results:** There were a total of 1513 biopsies performed at the three tertiary hospitals between 1 January 2015 to 31 December 2019. Of these, 980 were native kidney biopsies and 407 allograft biopsies.

There were 43 crescentic glomerulonephritides (4.38%). The average age was 30.7 years, there were 13 male and 30 female patients. The patients comprised of 38 black, 2 Indian, 2 white and 1 mixed race patient. The majority of them (90.7%) were immune complex mediated and the remainder were ANCA mediated. The underlying cause of the 39 immune complex mediated crescentic glomerulonephritides was lupus nephritis in 32 (82%), post infection glomerulonephritis in 2 (5%), IgA nephropathy in 1 case (2.6%) and 4 (10.2%) with an undetermined underlying cause.

**Conclusions:** The aetiology of RPGN vary according to the demographics being studied. In predominantly Caucasian societies the most common cause is ANCA vasculitis. Studies from South Africa conducted in the 1980s, the most common cause of RPGN was post infectious GN. This contrasts with more recent studies from sub-Saharan Africa. This study yielded similar results with the predominant cause of RPGN being Lupus nephritis in 82 % of the patients followed by post infectious glomerulonephritis in 5 %. This is not surprising as SLE is common in black patients and the change in the pattern of aetiologies over the last few decades may be due to improved screening for SLE. The reduction in the cases of RPGN attributable to PIGN is likely to widespread antibiotic use. The prevalence of RPGN ranges between 2 and 10% and in the recent study from Senegal was 5.3 % . This is similar to this study with a prevalence of 4.38%. This study emphasizes the variation in aetiologies of RPGN in sub-Saharan Africa over the last four decades.

No conflict of interest

### POS-156

MANAGEMENT AND OUTCOMES OF ANCA ASSOCIATED VASCULITIS AT A TERTIARY HEALTHCARE FACILITY

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**Introduction:** Anti-neutrophil cytoplasmic antibody (ANCA) associated vasculitis (AAV) is a rare disorder with annual incidence estimated to be around 1.3 per 100,000 population. Renal involvement is one of the main predictors of mortality and morbidity, with approximately 30% of patients with renal involvement progressing to ESRD after 5 years. Renal biopsy can provide a definite diagnosis, and may predict the renal prognosis in AAV. Limited data is available on its management and outcomes, thus we aim to assess this at our tertiary care renal facility.

**Methods:** This was a retrospective cohort study. We included patients with a documented diagnosis of ANCA positive vasculitis between 1st January 2012 to the 31st December 2017, with a follow up period until 31st December 2019. Using a standardized data collection form we recorded the number of patients who had a renal biopsy, the induction and maintenance therapies used, along with relapse induction and maintenance therapies. At the end of the follow-up period outcomes were divided into progression to end-stage renal disease (ESRD), death, established chronic kidney disease (CKD), and preservation of renal function.

**Results:** Data of thirty-six patients were included in the final study. The patient baseline characteristics are listed in Table 1. Thirty-two patients (91.1%) had a documented renal biopsy. The majority of patients (66.7%) had cyclophosphamide for induction, followed by rituximab (19.4%). Seven patients (19.4%) had a documented relapse in relapse of AAV. However despite aggressive immunosuppression therapy, we favour rituximab as an induction agent in relapse of AAV. While cyclophosphamide remains the choice of induction immunosuppression therapy, we favour rituximab as an induction therapy for relapse. The majority of patients were on azathioprine (61.1%) as maintenance therapy after induction. This was similar to the maintenance therapy used after relapse (57.1%). Progression to ESRD occurred in 11 (30.6%), death in 4 (11.1%), established CKD in 15 (41.7%), and preservation of renal function in 6 (16.7%) patients by the end of the follow up period.

**Conclusions:** While cyclophosphamide remains the choice of induction immunosuppression therapy, we favour rituximab as an induction agent in relapse of AAV. However despite aggressive immunosuppression therapy the incidence of ESRD and death remains high in these patients. The current management and outcomes are comparable to present international guidelines and cohorts. We look forward to new updates and therapies to improve outcomes in AAV.

No conflict of interest

### POS-157

ACUTE POST-INFECTIONOUS GLOMERULONEPHRITIS IN CHILDREN: ABOUT A SERIES OF 83 CASES

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**Introduction:** Acute post-infectious glomerulonephritis (APGN) is a frequently observed disorder in children. The most frequent cause is beta-haemolytic streptococcus, followed by other pathogens such as group A streptococci, group B streptococci, and group G streptococci. The clinical presentation of APGN is characterized by a prodromal phase of upper respiratory infection, followed by signs of glomerular involvement such as proteinuria, haematuria, and nephrotic syndrome.

**Methods:** This retrospective study included 83 children who were diagnosed with APGN at our hospital between 2015 and 2019. The study was approved by the institutional review board. The diagnosis of APGN was based on the clinical presentation, laboratory findings, and positive antistreptolysin O (ASO) titre. The patients were divided into two groups: the first group included patients with active streptococcal infection, and the second group included patients without evidence of streptococcal infection.

**Results:** The mean age of the patients was 8 years (range: 2-16 years). The most common cause of APGN was beta-haemolytic streptococcus (65.7%), followed by group A streptococci (13.3%) and group G streptococci (3.6%). The most common clinical features were proteinuria (94.3%), haematuria (92.9%), and nephrotic syndrome (62.7%). The incidence of glomerular damage was high, with 79.5% of patients requiring hospitalization. The majority of patients (93.7%) responded to antimicrobial therapy, with resolution of proteinuria and haematuria in 7 days. The renal prognosis was good, with no cases of chronic kidney disease.

**Conclusions:** Acute post-infectious glomerulonephritis is a common condition in children, with beta-haemolytic streptococcus being the most frequent cause. Early diagnosis and treatment are crucial for a favorable outcome. Further studies are needed to explore the long-term outcomes and complications of APGN in children.