**HOW ARE ANTI-GBM ANTIBODIES TO BE INCLUDED IN ANCA TESTING?**

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Both anti-GBM disease and ANCA-associated vasculitis can present with rapidly progressive glomerulonephritis or pulmonary renal syndrome. Since treatment may differ, it is important to make the correct immunological diagnosis. There is well established evidence that anti-GBM antibodies are pathogenic and that their removal by plasma exchange, combined with immunosuppressive drugs, improves renal recovery and patient outcome. However, it has recently been recognised that low levels of natural autoantibodies to GBM may occur in normal individuals. Furthermore, asymptomatic anti-GBM antibodies may be present in patients some time before development of clinical disease. Double positivity for both anti-GBM antibodies and ANCA is well recognised, with ANCA found in 30-40% of patients positive for anti-GBM antibodies, and anti-GBM antibodies found in 5-10% of patients positive for ANCA. Many patients show clinical features of both diseases. There are several case reports of patients in whom ANCA precede anti-GBM antibodies, suggesting that ANCA may in some way induce anti-GBM antibody production. Although there are reports that double positive patients show a better response to treatment than those with isolated anti-GBM disease, larger studies demonstrate that the initial outcome of double positive patients is similar to those with anti-GBM antibodies alone. Recovery from advanced renal failure is extremely rare, as compared to patients with ANCA alone, of whom around 60% recover renal function if treated appropriately. However, follow-up of double positive patients reveals that they are prone to disease relapse associated with recurrence of ANCA. It is therefore important to test for anti-GBM antibodies in all patients with RPGN or pulmonary renal syndrome, together with testing for ANCA. Initial treatment of double positive patients should be as for anti-GBM disease, but long-term management as for patients with ANCA-associated vasculitis.