Supplemental Figure 1 Remission induction protocol used in ANCA vasculitis patients prior to rituximab maintenance therapy who received induction therapy at Massachusetts General Hospital.

1. CYCLOPHOSPHAMIDE

4 mg/kg PO daily x 1 week* 2 mg/kg PO daily x 7 weeks CrCl 40-60 cc/min (reduce dose by 25%) CrCl 20-39 cc/min (reduce dose by 33%) CrCl <20 cc/min (reduce dose by 50%) NOTE: PO:IV equivalency (IV if non-compliant) * use 2 mg/kg PO daily x 8 weeks IF 1) on rituxan and 2) non-organ-threatening disease as defined in #4 below.

2. PREDNISONE

1000 mg IV daily x 3 days 60 mg PO Q12h x 4 days 60 mg PO daily x 1 week 40 mg PO daily x 1 week 30 mg PO daily x 1 week 20 mg PO daily x 1 week 15 mg PO daily x 1 week 15 mg PO daily x 1 month 12.5 mg PO daily x 1 month 7.5 mg PO daily x 1 month 5.0 mg PO daily x 1 month 2.5 mg PO daily x 1 month 2.5 mg PO daily x 1 month

3. RITUXIMAB: DOSE 1: 1 gram IV x 1 during week 1, DOSE 2: 1 gram IV x 1 within three weeks after DOSE 1 - 1 gram IV x 1 Q4 months after DOSE 2 x 2 years thereafter followed by Q6 months (hold if IgG < ½ lower limit of normal)

4. PLASMA EXCHANGE: performed if severe renal and/or pulmonary involvement (7 exchanges over 10-12 days)
severe involvement defined as Cr > 5 and/or dialysis-dependence for no more than 2 weeks and/or alveolar hemorrhage
NOTE: also performed for 2.5-fold increase in ANCA titer and/or doubling of serum creatinine within one week of presentation