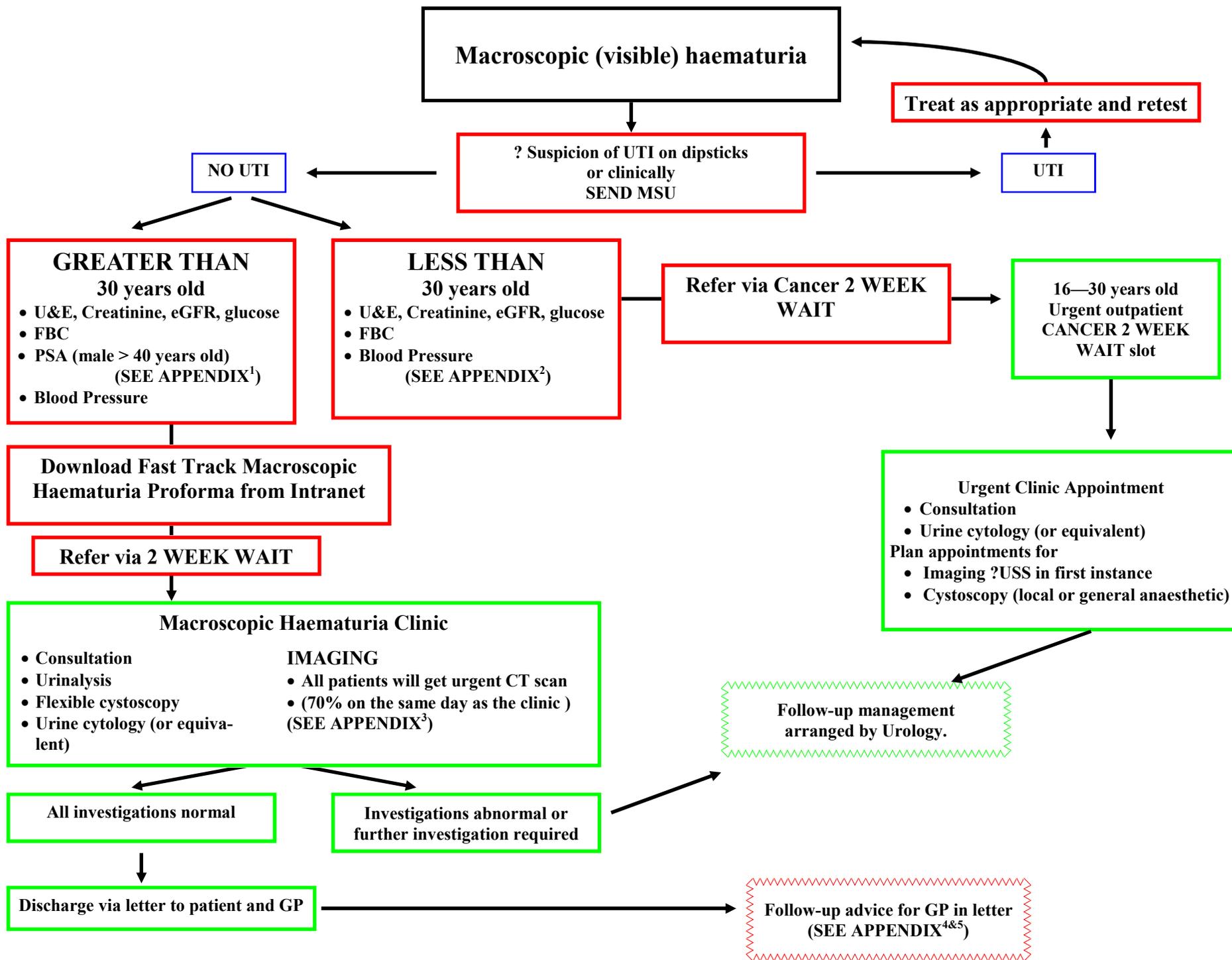


# APPENDIX 1

## (Microscopic Haematuria)

**RED BOXES**    **Primary Care Action**  
**GREEN BOXES**    **Secondary Care Actions**

1.    Significant microscopic haematuria  
      Definition: The presence of non-visible haematuria on 2 out of 3 occasions in the absence of a urinary tract infection  
      2+ or 3+ on dipstick urinalysis has a good positive predictive value for haematuria and does not need confirming with microscopy  
      Trace or 1+ should be confirmed on microscopy and 10 RBC/ microlitre is regarded as significant
2.    Risk Factors for Urothelial cancer  
      Smoking  
      Strong family history of bladder cancer (2 or more relatives)  
      Occupational exposure to carcinogens  
      Pelvic irradiation  
      Cyclophosphamide treatment  
      Previous schistosomiasis infection  
      Significant filling bladder symptoms in the absence of a urinary infection (urgency, frequency, dysuria)
3.    PSA  
      PSA should be checked in male patients (after counselling)  
      i] above the age of 50 years old, with greater than 10 years life expectancy  
      ii] between 40—50 years old with a family history of prostate cancer or of African descent  
      iii] with an abnormal feeling prostate should be
4.    Imaging  
      For patient greater than 50 years old this will be based on CT urography but may be changed to ultrasound plus IVU if CT scanning ‘slots’ are not available.  
      In patients < 50 years old USS will form the basis for initial investigation due to the risks associated with increased radiation exposure in a young age group.  
      This ultrasound should be arranged by primary care
5.    Patients less than 30 years old  
      In patients less than 30 years old with significant microscopic haematuria the pick up rate of significant pathology is very low (< 2%). Investigation in addition to the USS (arranged in primary care) may be required including cystoscopy. Flexible cystoscopy under local anaesthetic is poorly tolerated in this age group and as such these patients will be seen in clinic to discuss the need for further investigations. A cystoscopy under general or local anaesthetic may be arranged following this clinic visit.
6.    Follow-up advice  
      If all investigations are normal the follow-up advice will be conveyed to the GP and patient via a letter. If the imaging modality was USS (i.e. in patients <50 year old) and there was no evidence of persistent microscopic haematuria for longer than 3—6 months then the GP may be asked to retest the urine at 3—6 months and if blood is still present then an IVU should be performed. If this is normal then no immediate further investigation is required.  
      Follow-up of patients with microscopic haematuria should include yearly urinalysis, U&E, Creatinine and eGFR and blood pressure for 3 years. Rereferral to Urology should be made if new symptoms develop (e.g. Lower urinary tract symptoms or macroscopic haematuria) and to renal medicine if proteinuria, abnormal renal function or refractory hypertension develop.



## APPENDIX 2

### (macroscopic 'visible' haematuria)

**RED BOXES**      **Primary Care Action**  
**GREEN BOXES**   **Secondary Care Actions**

3.    PSA  
PSA should be checked in male patients (after counselling)
  - i] above the age of 50 years old, with greater than 10 years life expectancy
  - ii] between 40—50 years old with a family history of prostate cancer or of African decent
  - iii] with an abnormal feeling prostate should be
  
2.    Patients less than 30 years old  
In patients less than 30 years old with macroscopic haematuria the pick up rate of significant pathology is low (< 5%). Due to the increased radiation dose of Ct scanning a ultrasound may be arranged as the first investigation. Furthermore as flexible cystoscopy under local anaesthetic is poorly tolerated in this age group a discussion over the need for this investigation (advisable for most patients with painless macroscopic haematuria) will be had. A cystoscopy under general or local anaesthetic may be arranged following this clinic visit.
  
3.    The Fast Track Haematuria Clinic  
Due to limited access to CT scanning session only 70% of patients will have their CT on the same day as their flexible cystoscopy. The remaining 30% will be booked into an urgent CT slot within the following 2 weeks
  
4.    Follow-up advice  
If all investigations are normal (including CT scan) then the follow-up advice will be conveyed to the GP and patient via a letter. Follow-up of patients with macroscopic haematuria should include yearly urinalysis, U&E, Creatinine and eGFR and blood pressure for 3 years. Rereferral to Urology should be made if new symptoms develop (e.g. Lower urinary tract symptoms) or proteinuria or abnormal renal function develop.  
If no cause is found in male patients over 40 years old the macroscopic haematuria may be ascribed to benign prostatic hyperplasia (a diagnosis of exclusion) when medication (including 5 alpha reductase inhibitors) may be advised for recurrent bouts.
  
5.    Persistent troublesome macroscopic haematuria  
In some patients macroscopic haematuria persists despite negative initial investigations. In these patients further investigations may be required including renal arteriography, retrograde ureterography, cystoscopy and biopsy and occasionally ureteroscopy. These will be arranged by secondary care