

**Joint diabetes – nephrology services provide  
significant benefits to patients with Diabetic  
Nephropathy**

Prof Jiten Vora  
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# Definition

- 'JOINT'
- *Held or done by, belonging to , two or more persons, in conjunction, sharing actions, possession*

# Doctor AS – 48 yrs

- T<sub>1</sub>DM – 21 years
- Nephrology service – 4 yrs – macroalbuminuria, ↑ proteinuria → 2.8 gms/24 hr
- Urea – 8.2 mmol/l      Creatinine 164 umol/l
  
- *‘well, with stable renal function – SR, BP 168/88, JVP<sup>0</sup>, normal heart sounds and clear chest, with marginal peripheral oedema. Current medication is losartan 100 mg, Enalapril 40 mg, Furosemide 40 mg, Doxazosin 4 mg and Simvastatin 40 mg. I have added in nifedipine 40 mg and plan review in 4 months’.*
  
- HbA1c – 8.9%
- Total Cholesterol – 5.3 mmol/l LDL-Cholesterol – 3.4 mmol/l
- Gross proliferative retinopathy

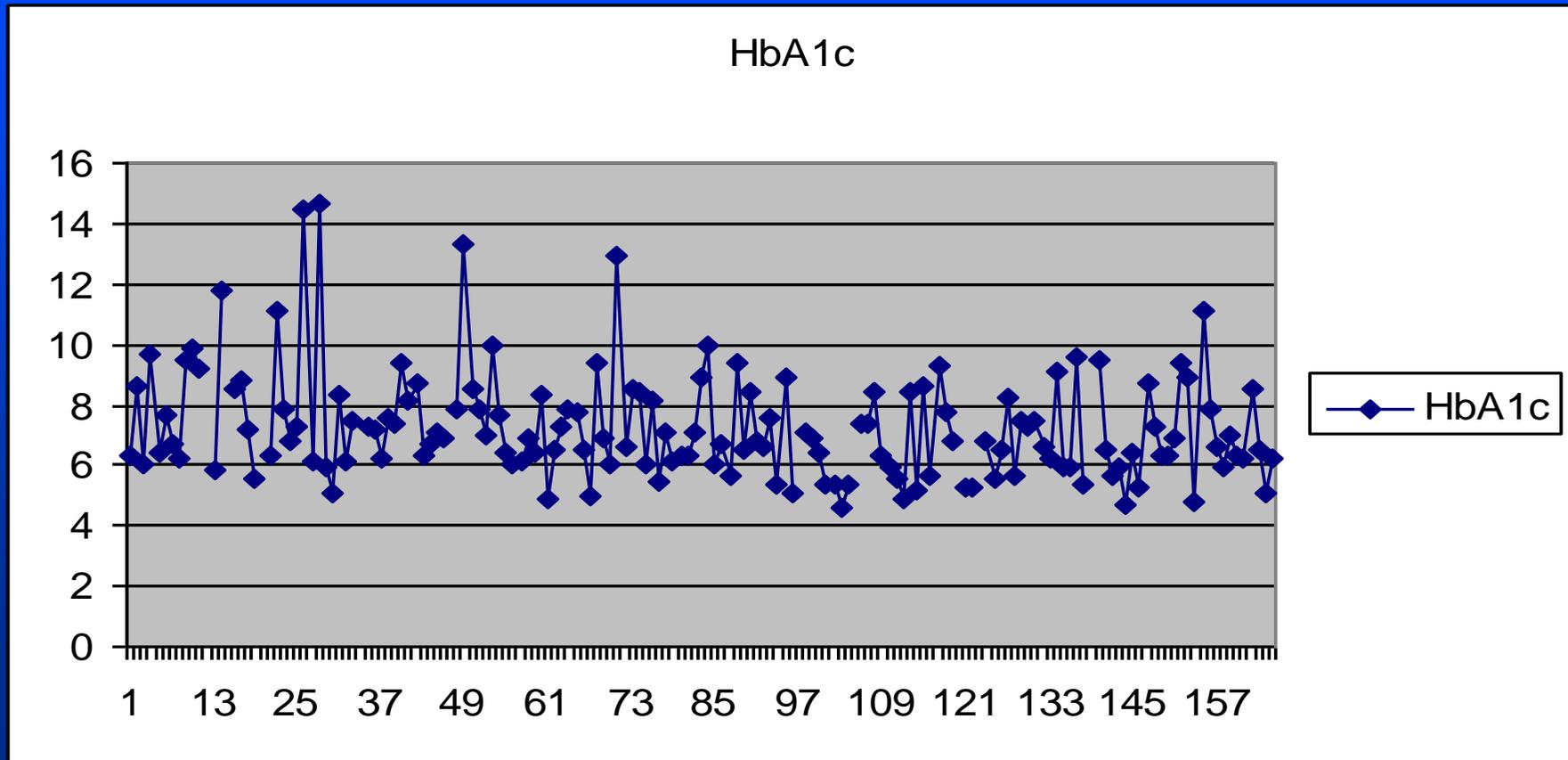
## JD - 28 yrs

- '... see this 28 year old with longstanding Type 1 diabetes and nephropathy. He attended the ophthalmology A/E today with sudden loss of vision in his left eye. He has been attending the Renal clinic but has DNAd from the diabetes clinic as did not feel he needed to attend. On examination he has a vitreous haemorrhage in his left eye with widespread proliferative changes in the right, for which he will be undergoing photocoagulation next week. He reports continually raised glucose levels and is not certain of his other medication ...'
- Painful Peripheral neuropathy
- HbA<sub>1c</sub> – 12.2%; Total Cholesterol – 8.2 mmol/l (stopped statin - ?)

## SB – 51yrs

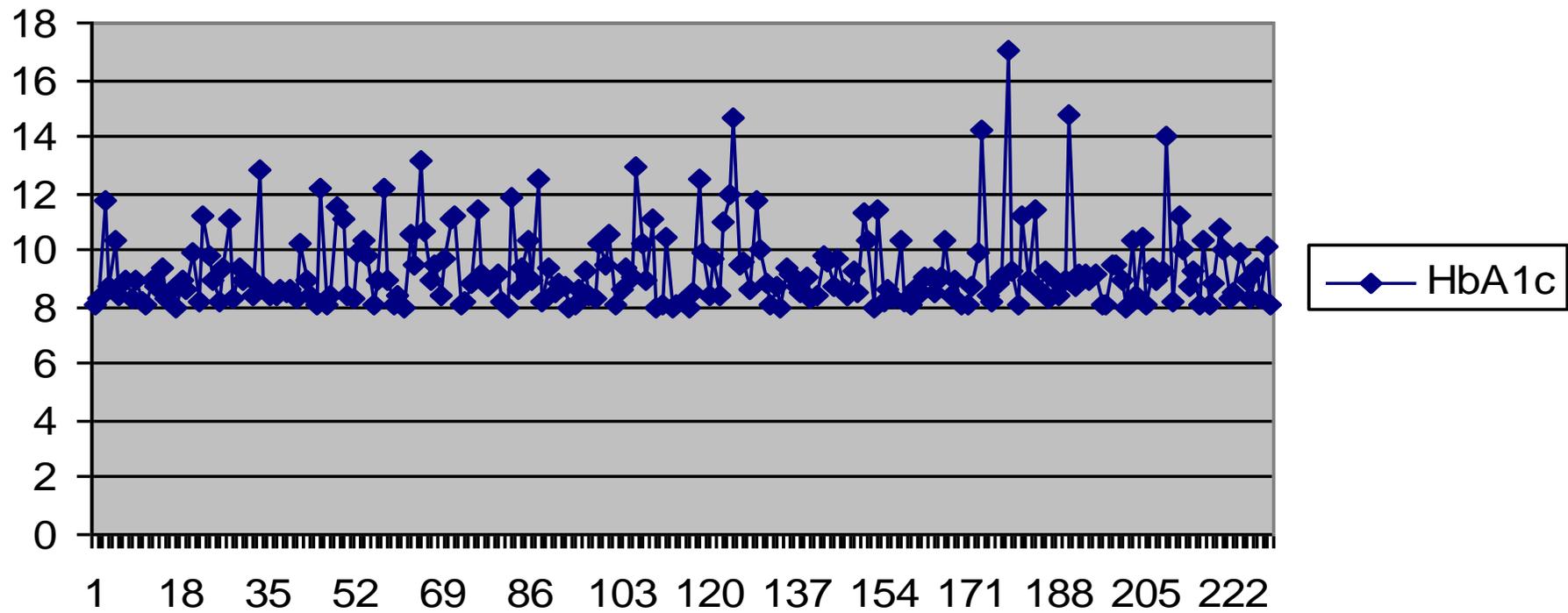
- ‘ ..... review this patient on the ward. He was admitted from the nephrology clinic with a large ulcer and cellulitis on his right hallux. On examination he has evidence of neuropathy and peripheral vascular disease’

# Pre-Dialysis DN patients and HbA<sub>1c</sub>



# CKD patients

HbA1c

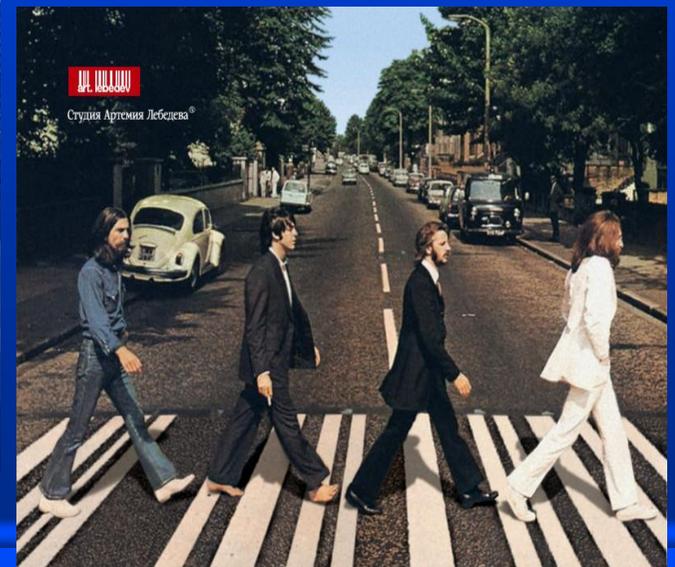


# CKD Patients

- N=239
- 68% - Significant retinopathy
- 18% - Sight – threatening retinopathy
- 82% - Peripheral neuropathy
- 8% - ‘at-risk’ feet
  
- 72% - regular DNA from respective diabetes service



# Liverpool 5 – Arsenal 3



# Diabetes – Nephrology links

- Out patient –
  - no onsite nephrology
- Non – Renal Opportunities:
- Glycaemic control – long-term; Diabetes team
- High-risk patients
  - Multiple microvascular complications – structured screening and treatment (*cf crises management*)
  - retinopathy; neuropathy (autonomic – postural); ‘at risk’ feet
- Cardiovascular – risk factor management
- Post-transplant diabetes

# Diabetes – Nephrology links

- Outpatients - Combined clinics:
- Patient sensitive approach – empowered medical care
- One-stop shop
- Identifies cause of CKD
- Agreeing strategies of care with patients and carers esp for delaying progression of CKD and other microvascular Cx
- Planning options for RRT – avoiding ‘late’ referrals
- Ensuring ‘best fitness’ for RRT

# Diabetes – Nephrology links

- **Inpatients:**
- Optimising glycaemia - ? Change of regimen → commonest regimen bd premixed insulins; involvement of diabetes team
- Optimising glycaemia – Dialysis related
- Structured evaluation of complications → ‘Prophylactic’ management
- Continuing care of high –risk patients

## Diabetes – Nephrology links - Clearly defined Targets



HbA1c < 7.0

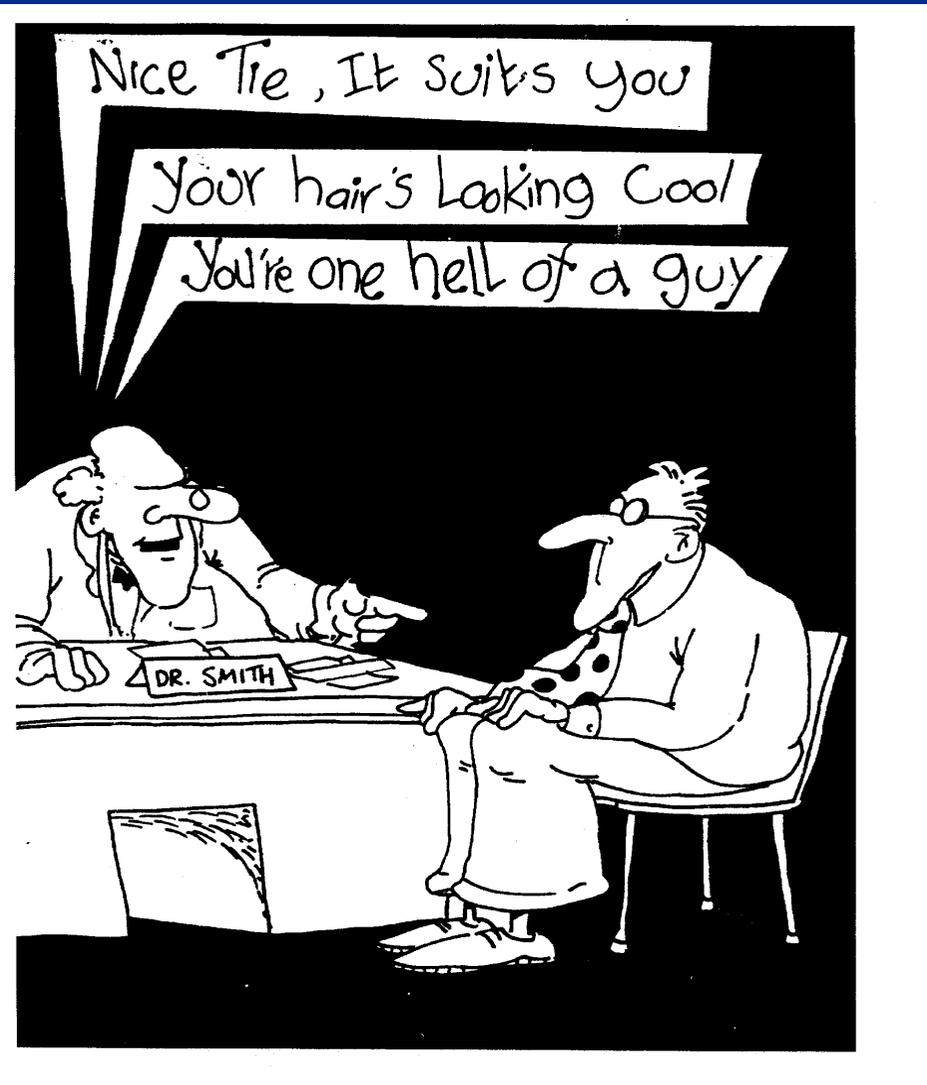
BP < 125/75

LDL < 2.6

Max. RAAS

Aspirin 75

No smoking



Complimentary Medicine.

# Diabetes – Nephrology links

- Outpatients - Combined clinics:
- Atypical - ? non-diabetic
- ↓ eGFR > 10 ml/min/yr
- CKD 4 and progressing
- EPO therapy
- Complex treatment for phosphate control
- Uncontrollable hyperkalaemia despite all the usual stuff (i.e. need RRT)
- Very heavy proteinuria despite usual efforts (including dual RAAS blockade)