



Drug Encounters in a Kidney Hospital: A One Year Review.

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Introduction

- Evidence based medicine has identified newer drugs that have better safety profile for renal patients
- Current Tx recommendations stress:
 - the importance of therapies to improve the morbidity and mortality of these patients
 - therapies that delay the progression of kidney disease.
 - This is best served if and when the prescribing physicians are abreast with current standard guidelines and medications.

Objectives

- To determine the prescribing pattern among doctors in Kidney Care Centre Ondo.
- To determine if prescribers are compliant to current pharmacological trends in renal care.

Methodology

- 3,545 patient encounters were reviewed retrospectively for a 1-year period at the Centre between March 2014 and February 2015.
- Prescriptions containing only galenicals and written by non- doctors were excluded.
- Serum creatinine and glomerular filtration rates were obtained from patients case notes.

Methodology (ctd)

- We determined prescribing pattern using prescribers indicator
- We determined prescribers adherence to current guidelines by comparative analysis
- Data was analysed using SPSS version 17.

Profile of prescribers at KCC

- Consultants ----- 2
- Medical Officers----- 6
- Corp doctors----- 5
- House Officers----- 4



KIDNEY CARE CENTRE ONDO



Prescription Form

Hosp. No. 001053

BILL	
N	K

NAME (Surname first) Olaniran Tusi

AGE 54 yrs SEX ♂ PHONE NUMBER 0703311911

- IV Mannitol 20% 250ml 8hrly stat
- IV Cannula 16G x 1
- 1000 Arthamether 160mg stat then 800mg dly x 2/7
- Tab Amodiaquina 600mg dly x 3/7

Dabang
Name of Doctor

Kidmo/03
Code No

[Signature] 5/3/14
Signature/Date

Fackungbe
Dispensed by

Pharm. Babatunde
Checked by

5/3/14
Pharmacist

REMARKS:

Operational Definition

- **Drug encounter** refers to each prescription written by a prescriber to a patient in a health facility.
- Range for average drug encounter = 1.6-1.9
- **Drug use indicator** is a measure to determine the behaviour of a prescriber

- WHO: *How to investigate drug use in health facilities: selected drug use indicators*. Geneva: WHO/DAP/93.1; 1993.

Prescribing Indicators

- Average no of drugs per encounter = $(\text{total number of drugs prescribed}) \div (\text{total number of encounters surveyed})$.
- % of drugs prescribed by generic name = $(\text{no of drugs prescribed by generic name}) \div (\text{total no of drugs prescribed}) \times 100$.
- % of encounters with a drug class prescribed = $(\text{no of patient encounters during which the drug class was prescribed}) \div (\text{total no of encounters surveyed}) \times 100$.
- % of encounters with an injection prescribed = $(\text{no of patient encounters during which an injection was prescribed}) \div (\text{total no of encounters surveyed}) \times 100$.

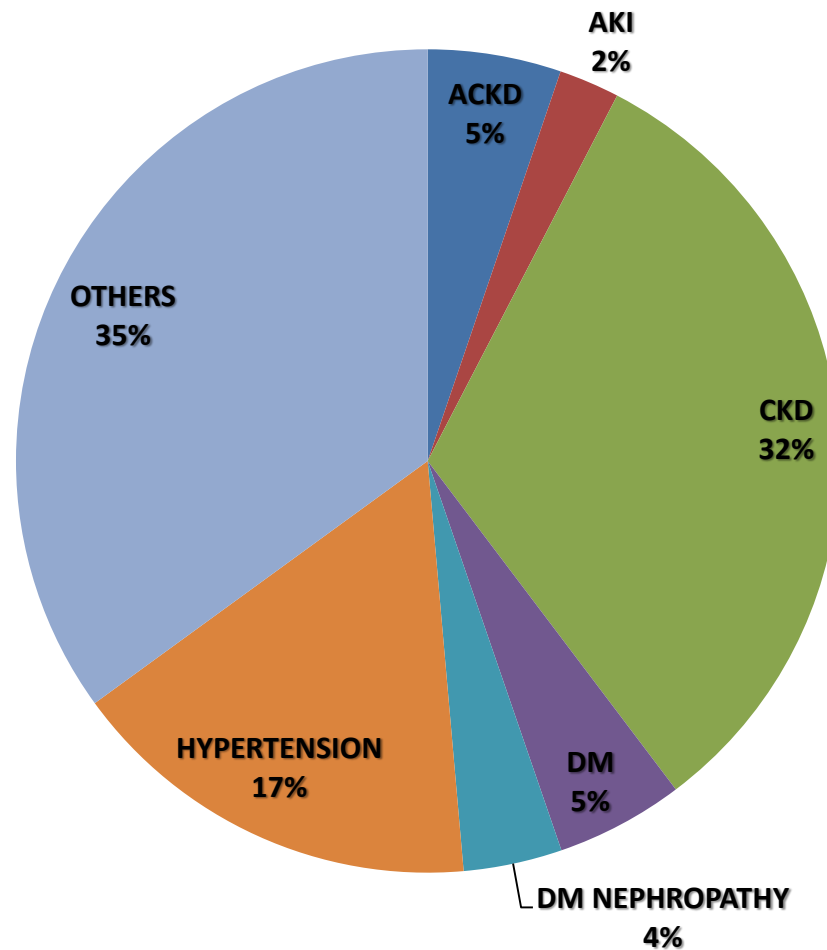
-WHO: How to investigate drug use in health facilities: selected drug use indicators. Geneva: WHO/DAP/93.1; 1993

RESULTS

PATIENTS' CHARACTERISTICS

Patients (<i>n</i>)	374
Male (n, %)	255 (60.2%)
Female (n, %)	149 (39.8%)
Age (range) in years	49.3 (16-88)
e-GFR	36.3ml/min/1.73m ²

Diagnosis of patients studied



Results (ctd)

- Average drug encounter at KCC Ondo was 1.67
- This compared favourably with WHO standard.

Standard Clinical Guidelines

GUIDELINE S	1 st choice	2nd	3rd
JNC 7	Diuretics	CCBs	ACE Inhibitors
KCC	Diuretics (63.1%)	CCBs (11.6%)	ACE-Is (10.0%)
ADA 2013	Biguanides (exclude CKD pts)	Thiazolidinediones	Sulphonylureas
KCC	DPP4-Is (37.9%)	Insulins (29.8%)	Sulphonyl..(17.4%)
KDIGO 2012(ANEMI A)	Ferrous salts, Folic acid, IV iron	ESAs	Red cell tranfusion
KCC	Ferrous salts, Folic acid, IV iron (55.2%)	ESAs (44.8%)	_____

Results and Discussions


DRUG CLASS	PERCENTAGE	SUBCLASS	DRUG NAME	NEWER TRENDS
ANTIHYPERTENSIVES	45.8%	DIURETICS 63.1%	Furosemide 63.1% Hydrochlorothiazide 27.0%	Torsemide 2.82% Metolazone, Indapamide, Chlorthalidone- NIL
		ACE INHIBITORS 10.0%	Lisinopril- 98.7%	Ramipril- 1.2%
		ARBs 3.7%	Valsartan-90.0% Losrtan-10.0%	Telmisartan- NIL
ANTIANEMIAS	22.4%	FERROUS SALTS, FOLIC ACID, ORAL IRON- 55.2%		
		EPOETIN-44.8%		
AGENT SPECIFIC: ANTIBIOTICS	13.8%	5-NIRTOIMIDAZOLES 31.2%	Metronidazole- 31.2%	Moxifloxacin Meropenem
VACCINES	-	-	-	Pneumooccal, Menigococcal, Hepatitis B

Conclusion

- Doctors at KCC practised within the limits of WHO recommendations
- However, due to a numbers of factors, they prescribed more of older generations
- There was an adherence to standard guidelines

Recommendations

- Continuing Medical Educational for doctors on prescription writing and rational drug use
- There should be regular inter-departmental interactive sessions between Pharmacists and doctors at all levels
- There should be feedback control systems and immediate review of prescriptions and patients case notes by the hospital pharmacist.



**THANK YOU
ANY QUESTIONS?**

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