

Triple Whammy in Acute Renal Failure (ARF)

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Our menu for afternoon tea

- Introduction
- Aim
- Method
- Result & Discussion
- Chat session

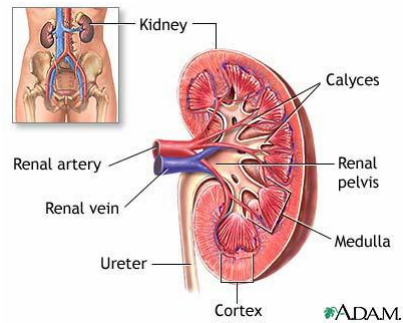


Intro : What is ARF??

Deterioration of renal function over a period of hours to days which result in the failure of kidney :

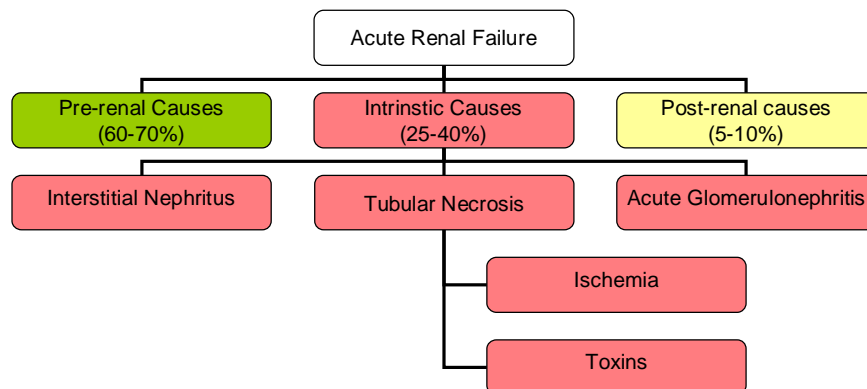
✓ *To excrete nitrogenous waste product*

✓ *To maintain fluid & electrolyte homeostasis¹*



¹ Hughes J, Donnelly R, James-Chatgilaou G (editors). Clinical Pharmacy : A Practical Approach 2nd ed. Victoria: Macmillan Education Australia;2001.p133

Intro : causes^{2,3}



²Thadrani R, Pascual M, Bonventre JV. Acute Renal failure. N Engl J Med 1996 May 30;324(22):1448-59

³Grawal MA, Swartz R. Acute Renal Failure. Am Fam Physician 2000;61:2077-88

Intro : "Triple Whammy"

"Adverse effect of combinations of ACE inhibitors/angiotensin receptor antagonist (ARA), diuretics, & NSAIDs, particularly in elderly"⁴

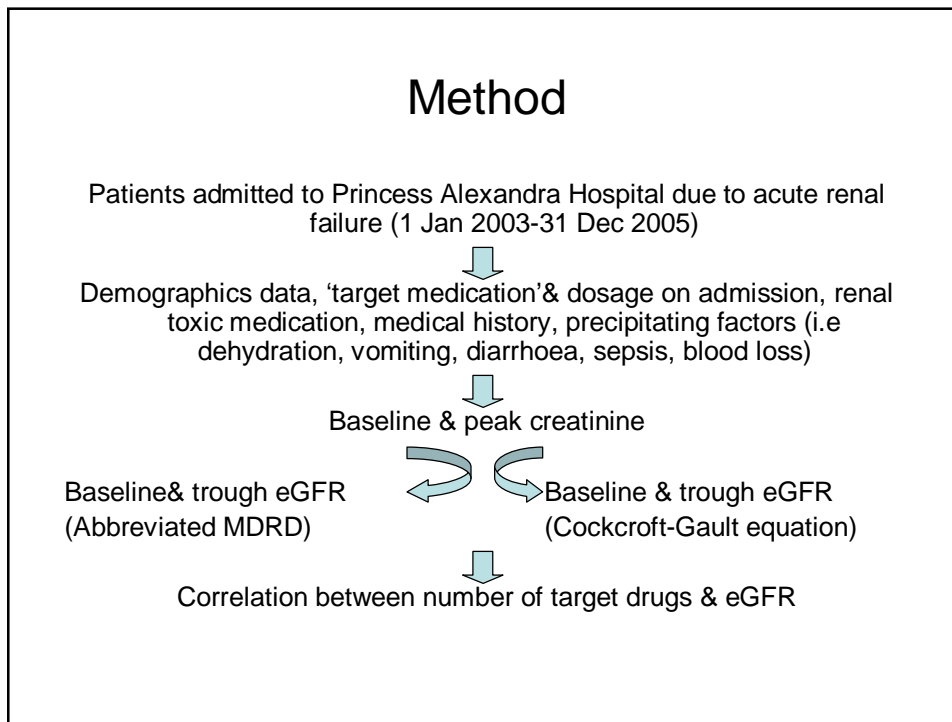
- ACEI → efferent arteriole dilatation → decrease glomerular filtration rate (GFR)
- Diuretics → decrease the plasma volume → reduce renal plasma flow
- NSAIDs → block prostaglandin production → decrease glomerular perfusion

⁴MC Thomas. Diuretics, ACEI and NSAIDs-The Triple Whammy. Med J Aust 2000;172:184-5

AIM

- Determine the effect of triple whammy combination in inducing ARF
- Gain more insights about risk factors deteriorating renal function

Method

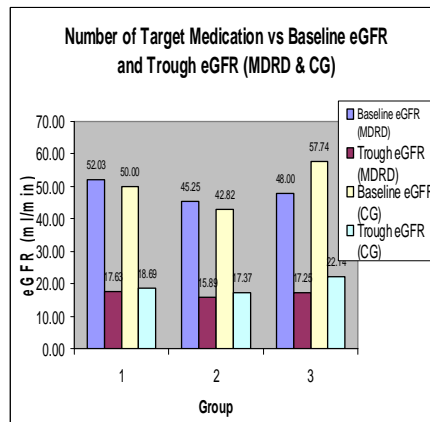
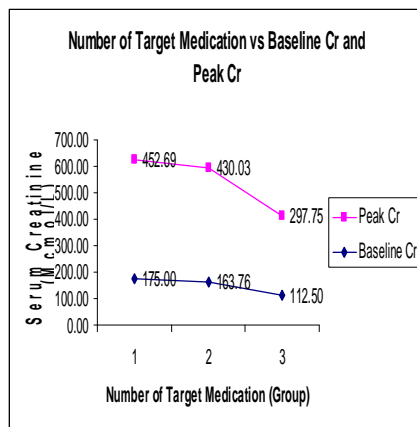


Result & Discussion

Table 1. Patient demographic distribution between groups on one, two and three target drug

Number of target drug	One (N=29)	Two (N=34)	Three (N=4)
Gender (%)			
Male	19 (65.92)	16 (47.06)	2 (50)
Female	10 (34.48)	18 (52.94)	2 (50)
Age			
Mean±SE (Range)	70.79±2.44 (36-93)	75.11±1.89 (37-89)	62.75±11.35 (43-78)
Weight			
(Mean±SE)	68.97±4.65	73.15±4.00	87.98±22.13

Result & Discussion



Results & Discussion

Precipitating factors

- 47.8% dehydrated
- 20.9% vomiting
- 17.9% diarrhoea
- 11.9% sepsis

The majority factors found in single whammy group

Medical history

- o 62.7% hypertension
- o 38.8% pre-existing renal disease
- o 23.9% ischaemic heart disease

The 8th Asian Conference on Clinical
Pharmacy: "Toward Harmonization of
Education and Practice of Asian Clinical
Pharmacy"

