



## Early experience with IV Fosfomycin

PD Hinduja National Hospital and Medical Research Centre

Pratik Savaj DNB, Kanishka Davda DNB, Ayesha Sunavala FNB, Rajeev Soman MD FIDSA

### Background

- ❖ Antimicrobial resistance in gram negative organisms is a global problem.
- ❖ There has been a great interest in fosfomycin, especially its parenteral formulation due to its excellent tissue penetration and broad spectrum of activity.
- ❖ The IV preparation has been recently introduced in India as rescue therapy for MDR gram negative organisms.
- ❖ However, data on clinical experience is lacking from our country.

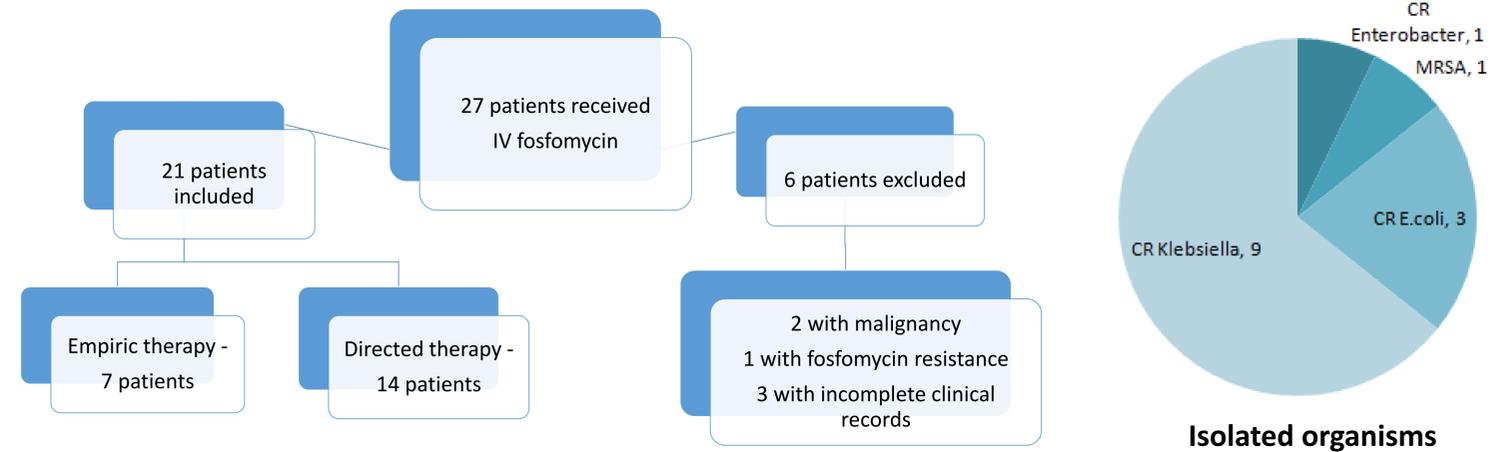
### Aims and objectives

- ❖ The present study aimed to examine the effectiveness & safety of IV Fosfomycin which has been recently licensed in India

### Materials and Methods

- ❖ We retrospectively studied patients who received IV Fosfomycin from January 2017 to February 2018. Patients with proven or suspected sepsis given IV Fosfomycin were included in the study.
- ❖ Clinical, microbiological outcome and adverse reactions were noted.
- ❖ Patients who received IV fosfomycin for SIRS due to a non-infective etiology or microbiology report showing fosfomycin resistance were excluded from study

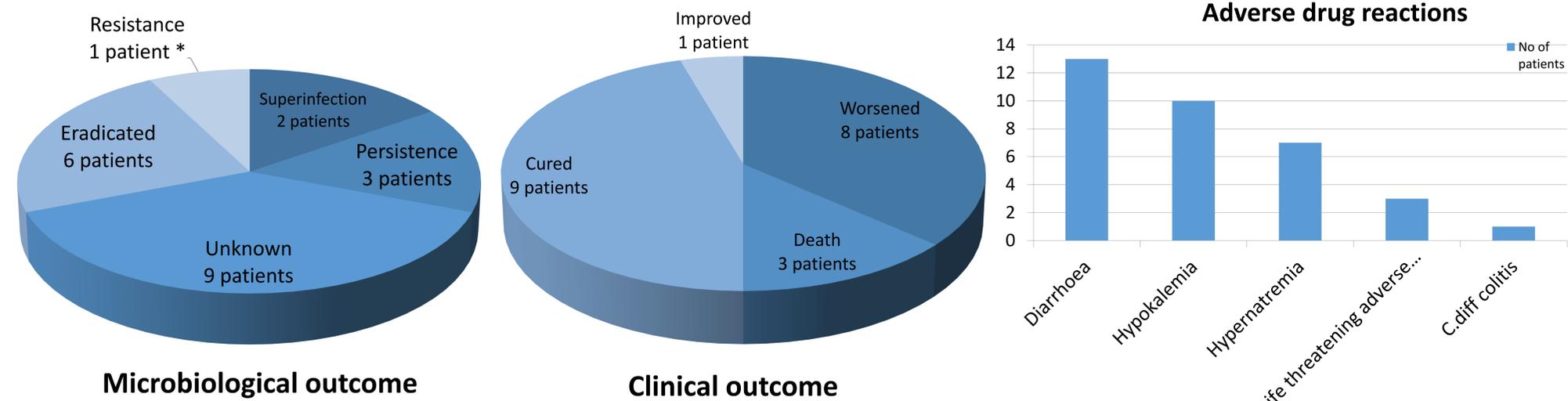
### Observation



### Conclusion

1. Fosfomycin appears to be a useful addition to the depleted armamentarium as salvage therapy for infections with multi drug resistant gram negative organisms. However, there is a need to demonstrate susceptibility of the causative organisms.
2. Although adverse events have not been considered significant in most reviews, they are highly significant in our experience.
3. We recommend close monitoring of fluid and electrolyte balance in patients receiving IV fosfomycin.

### Results



#### Life threatening adverse effects

2 patients developed non-cardiogenic pulmonary edema within 72 hours of starting IV fosfomycin & 1 patient developed torsades de pointes with QT prolongation secondary to hypokalemia

#### Electrolyte imbalance

Observed in patients aged >50 and those who received a higher dose than was appropriate for the creatinine clearance

\* 1 patient with bacteremic UTI due to Klebsiella pneumoniae received IV fosfomycin for 14 days and relapsed after 1 week of stopping treatment with the same organism showing fosfomycin resistance

### References

1. Fosfomycin. Matthew E. Falagas. Clin. Microbiol. Rev. 2016; 29 :321-347.
2. Adverse Events Associated with Fosfomycin Use. Dmitri Iarikov et al. Infect Dis Ther. 2015;4:433-458.