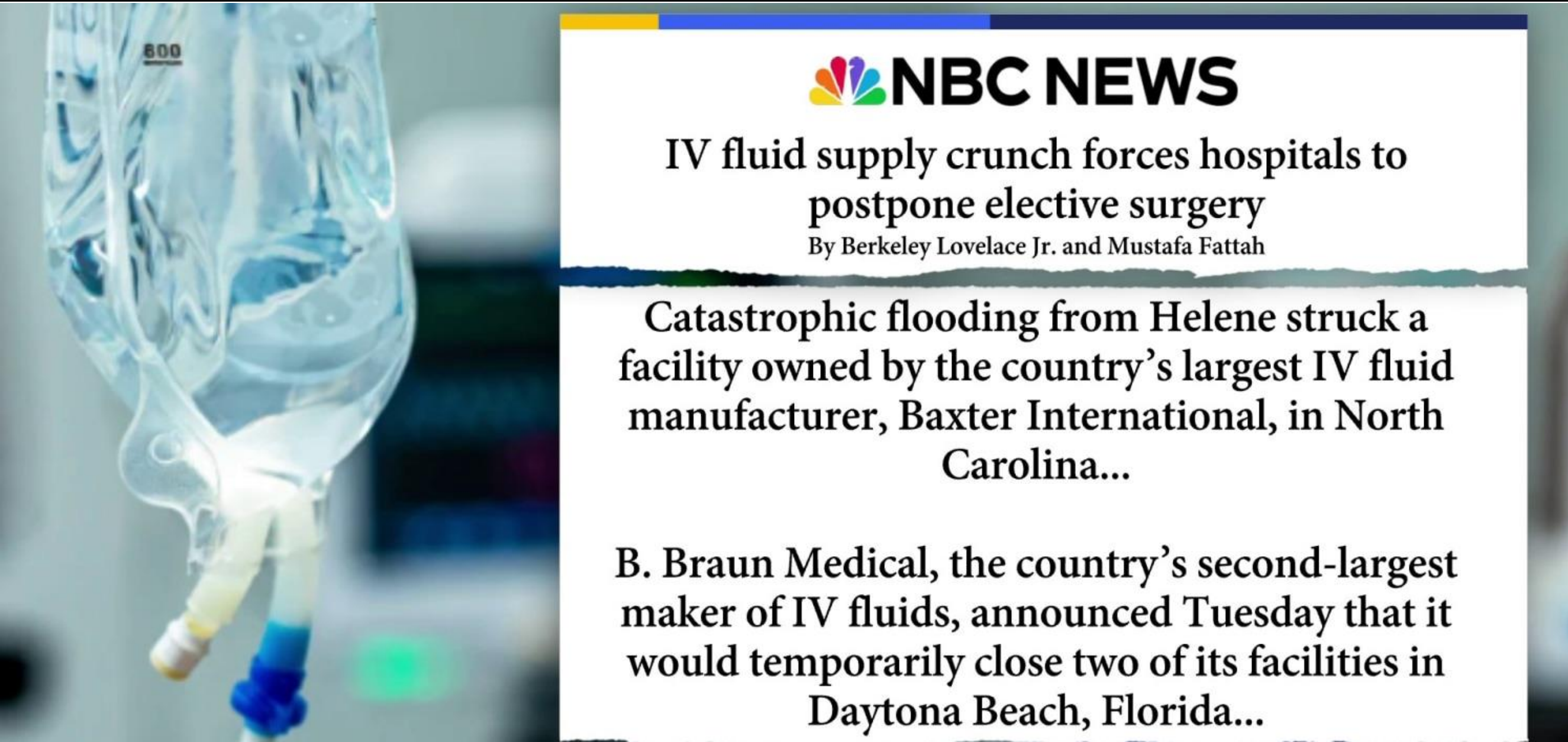


Introduction



- The IV fluid shortage prompted the creation of a natural experiment to validate or refute the practice of keeping patients completely NPO at midnight prior to a planned surgery
- Patients undergoing surgery were t instead were allowed to have clear liquids until 2-4 hours prior to their surgery

Objective

To determine the impact of IV fluid restriction on incidence and severity of AKI in inpatients undergoing diabetic limb salvage.

Methods

- All operations performed by the Georgetown Limb Salvage service were sampled during two representative periods:

9/16/2024-9/20/2024

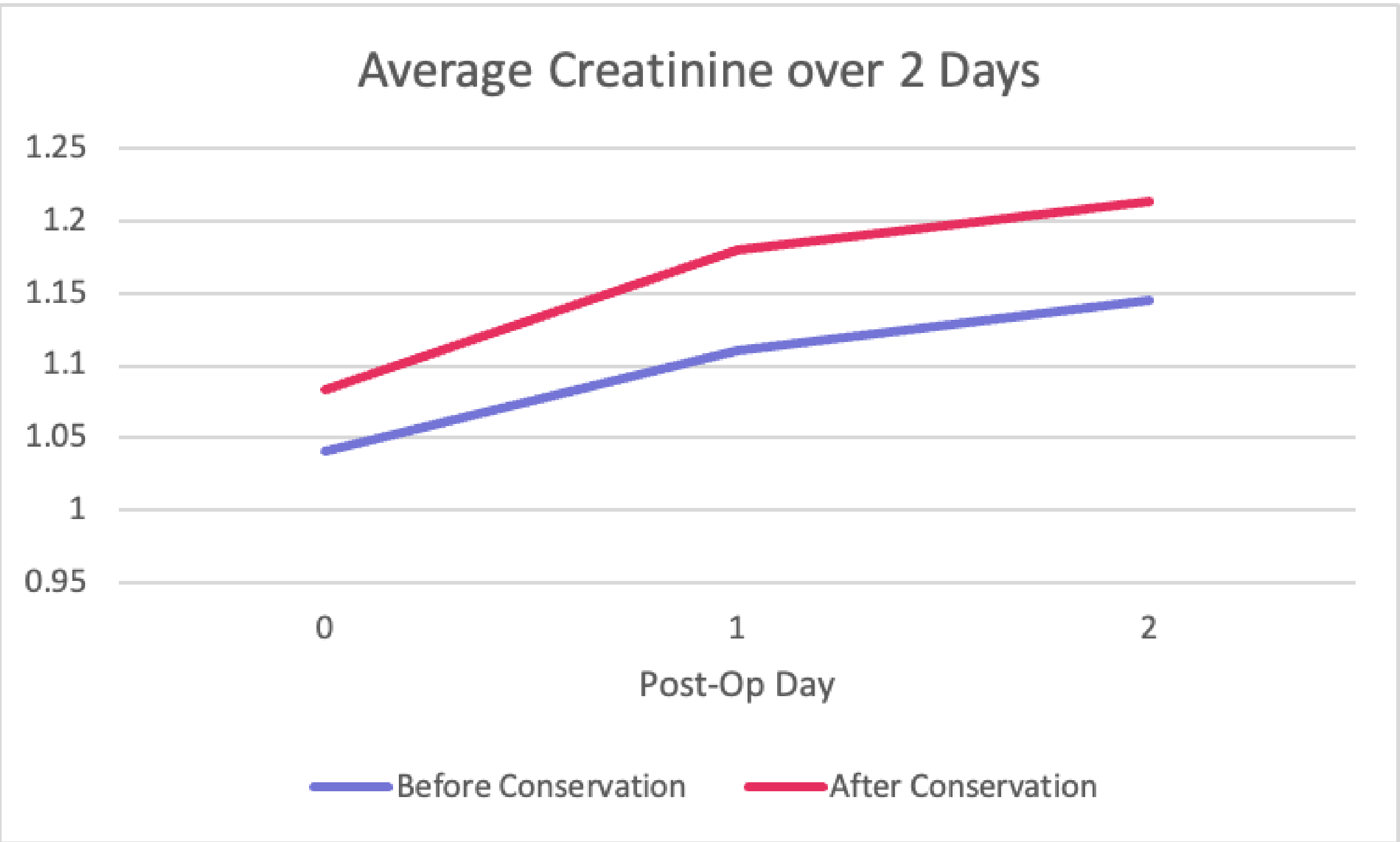
before IV fluid conservation

Vs.

10/14/2024-10/19/2024

after IV fluid conservation

Results



Patient Characteristics

- 37 patients sampled in the before conservation period, and 38 patients after conservation period
- No significant differences between groups based on age, gender, race, type of procedure, length of procedure, or baseline creatinine

	Before Conservation	After Conservation	p
POD1-POD0 Cr	0.072 ± 0.44	0.095 ± 0.36	0.88
POD2-POD0 Cr	0.11 ± 0.31	0.12 ± 0.43	0.38
AKI?	5	5	0.96
POD1-POD0 Cr in patients with AKI	0.51	0.74	0.70
POD2-POD0 Cr in patients with AKI	0.65	0.87	0.60
Increase in level of care to ICU?	0	3	0.081
Unreturned to baseline within 7 days?	3	4	0.72

Discussion

- We found no significant difference in overall rate of AKI in patients before and after the implementation of IV fluid conservation. AKIs developed in 5/37 (13.5%) patients before IV fluid conservation and in 5/38 (13.1%) patients after conservation.
- We caution against applying this practice universally, as patients at risk for nephrological insult, such as those with chronic kidney disease even if not on dialysis, may be at risk for further kidney injury with a strict NPO status.
- Given these findings, our health care system will in fact be eliminating the universal NPO after midnight practice and move towards the clinically proven safe protocols that we utilize in our ERAS pathways.

Conclusion

IV fluid conservation with oral intake of fluids 2-4 hours prior to surgery may be conducted safely from an AKI perspective, even in highly comorbid patients undergoing diabetic limb salvage

References

