



Implementation of a Pharmacist Discharge Culture Follow-Up Service in the Urgent Care Setting

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Disclosure

- The speaker has no actual or potential conflicts of interest in relation to this presentation

Learning Objective

- Describe how pharmacist review and follow-up of discharge culture results in the urgent care setting affects time to definitive therapy for uncomplicated cystitis

Background

Urinary Tract Infections

- Urinary tract infections (UTIs) are a significant reason for healthcare visits in the United States
- Annual Estimates
 - Office Visits – 10.5 million visits
 - Emergency Department – 2-3 million visits
- Annual economic burden ~\$2 billion

Urinary Tract Infections

- 55-60% of female patients will experience a UTI during their lifetime
- Majority of UTIs are caused by a single bacterial organism

Cox Medical Center Branson



140-bed
29-bed ED

6-room Urgent Care
~25,145 - Annual Visits

Discharge Culture Follow-Up Service

- Emergency Department services initiated in November 2016
- Evening pharmacist staffing Monday-Friday
- Daily workflow includes review of discharge culture results
 - Evaluation of empiric therapy
 - Recommendation of definitive therapy to providers
 - Communication of results to patient and prescription transmission

CMCB Emergency Department Discharge Culture Follow-Up

- Process well received by ED Providers
- Request for follow-up service in the Urgent Care
- Extension of services initiated in December 2019

Study Objectives

Primary

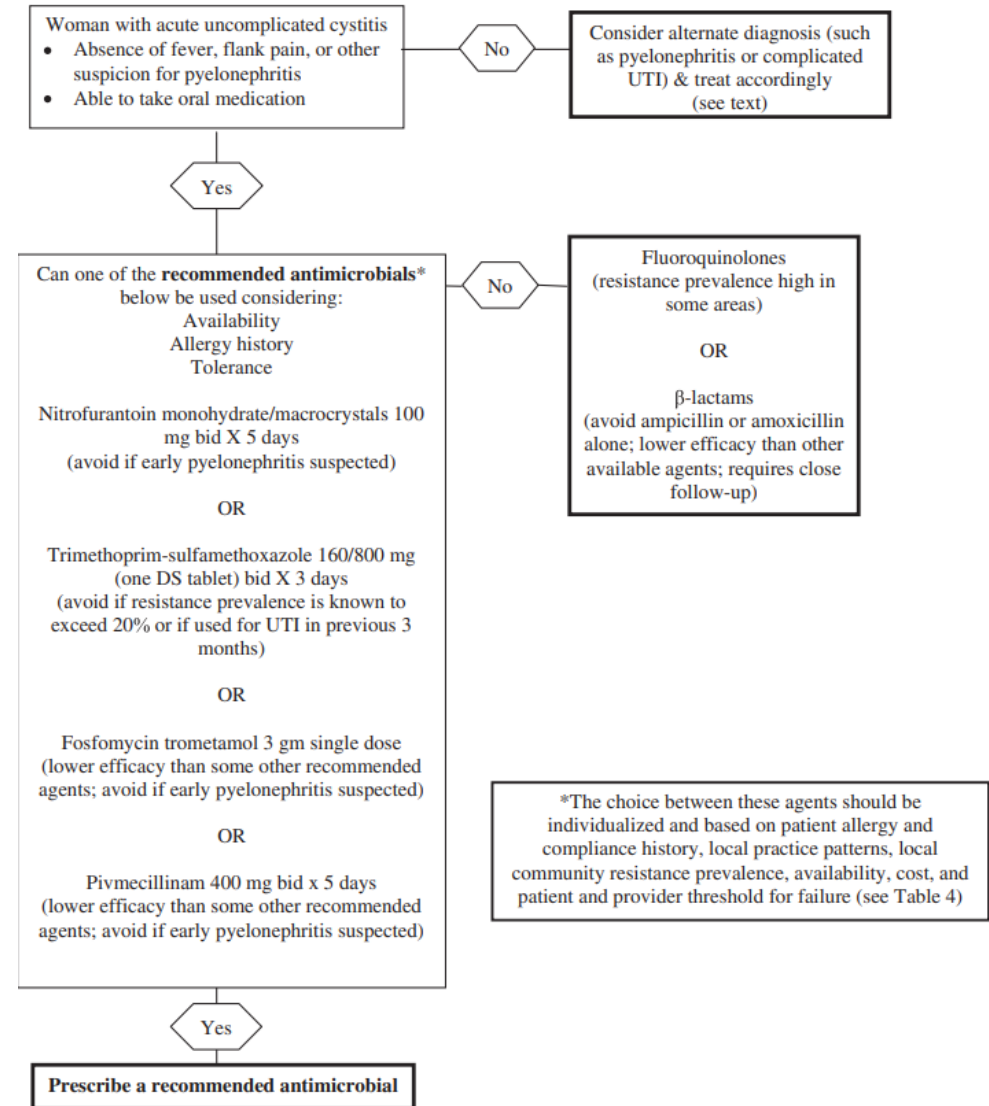
- Assess how pharmacist review of final culture results in the UC setting impacts time to definitive antibiotic therapy for a diagnosis of uncomplicated cystitis

Secondary

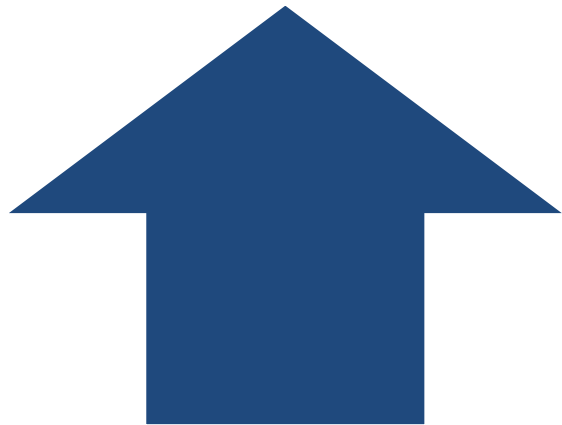
- Using final culture results, determination if empiric antibiotic therapy was:
 - Appropriate for the identified pathogen(s)
 - Resistant against the identified pathogens
 - Not provided initially, but treated upon final results
 - Not provided initially, with no follow-up needed
 - Required hospitalization

Methods

- Empiric therapy appropriateness performed using the 2011 IDSA Guidelines
- If renal labs available, appropriateness for renal function also evaluated



Methods



Inclusion Criteria

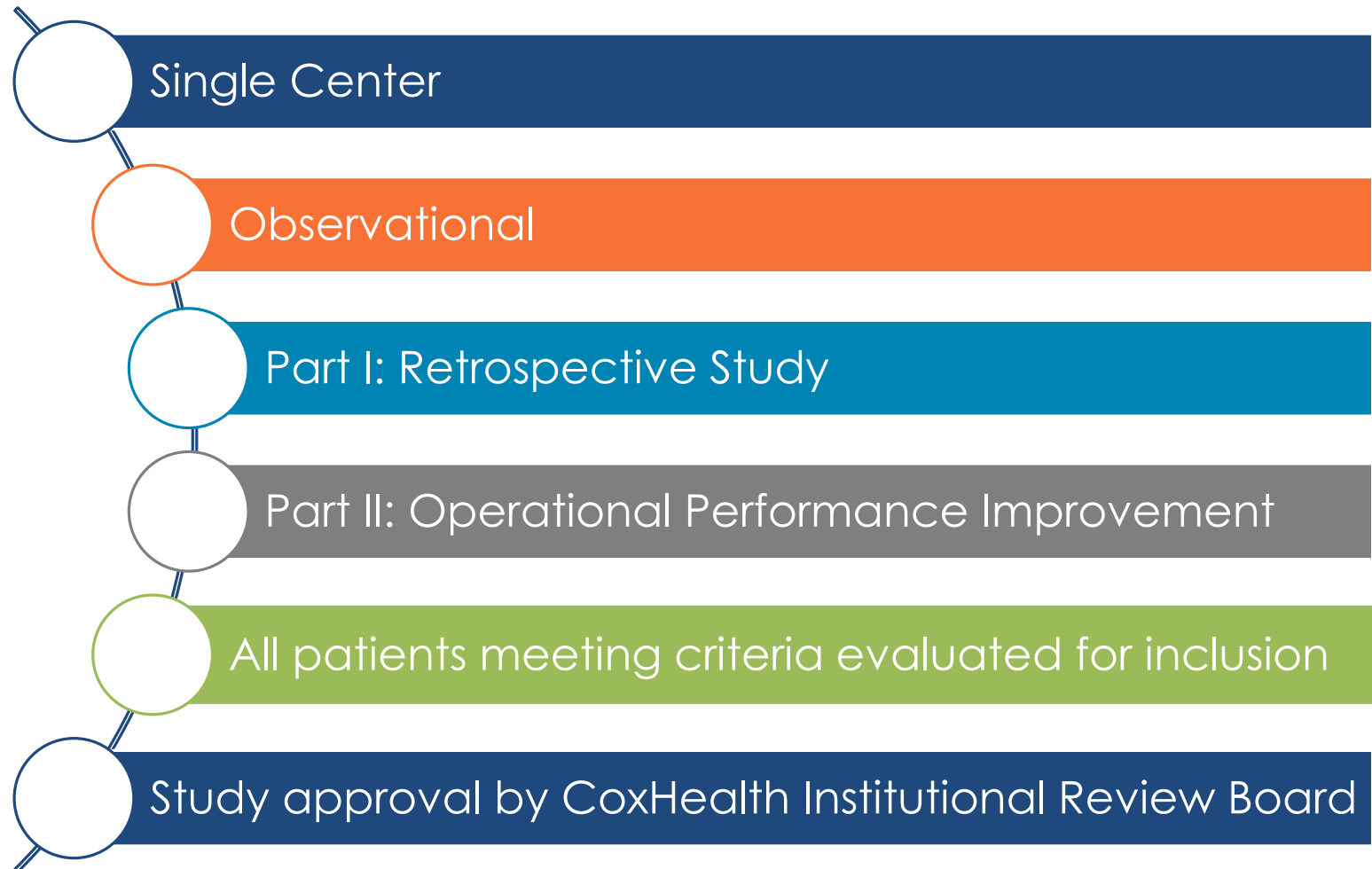
- Treatment at Cox Medical Center Branson Urgent Care
- Diagnosis of uncomplicated cystitis (2011 IDSA Guidelines)
- Pending lab culture results at time of discharge
- Female patients ≥ 18 years of age



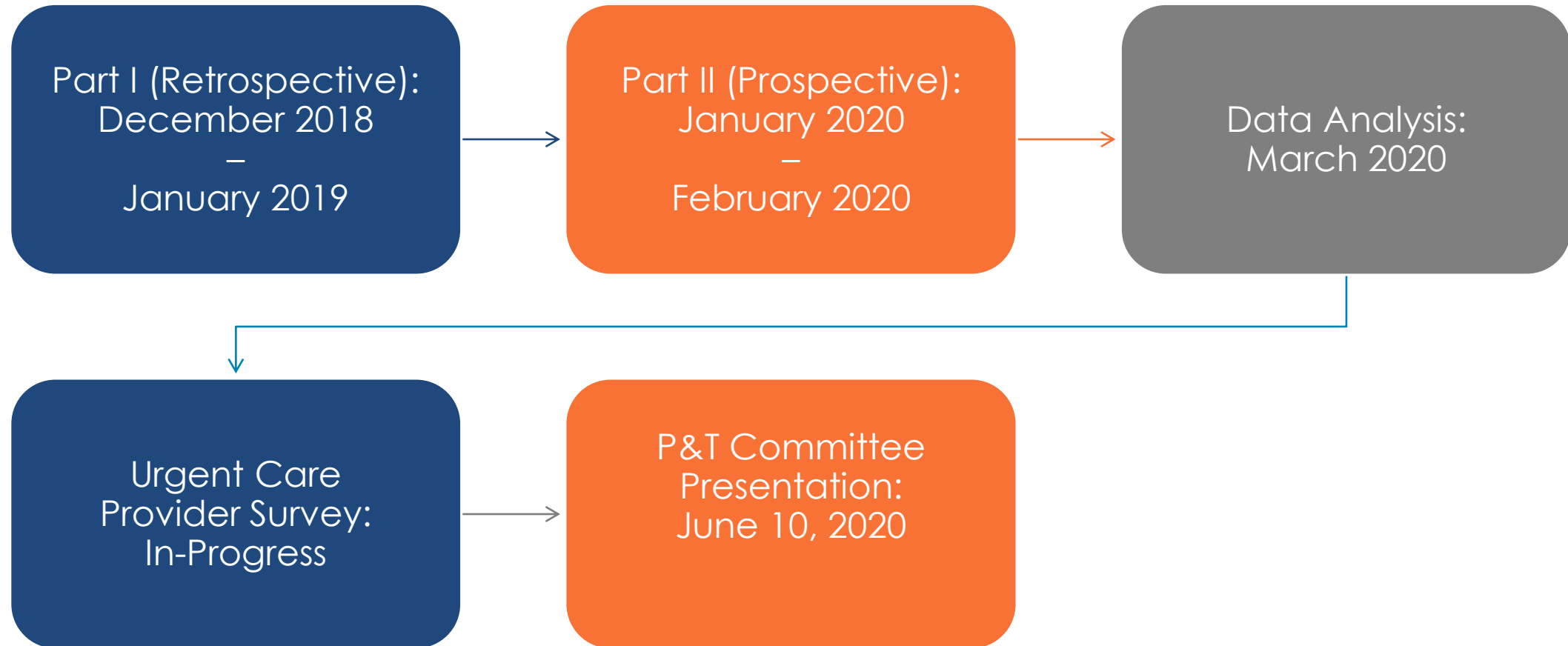
Exclusion Criteria

- Culture submitted to non-CoxHealth entity for lab testing
- Patient evaluated/treated at CMCB within past 14 days
- Patients admitted to any CoxHealth facility on day of evaluation
- Suspected, documented, or laboratory confirmed pregnancy
- Presence of urinary catheter prior to visit, or in-visit catheterization
- Loss of patient to follow-up
- Unwillingness to discuss culture follow-ups with pharmacist

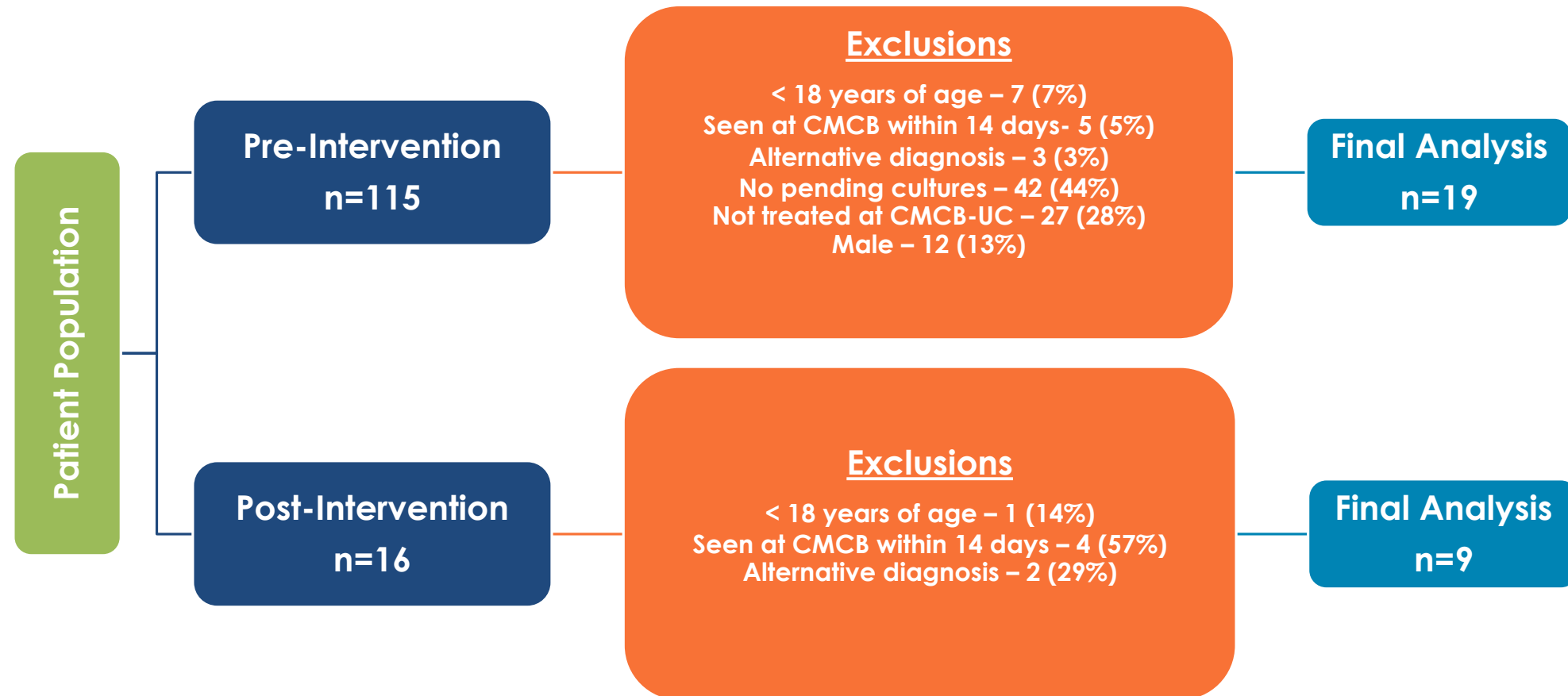
Study Design



Study Timeline



Patient Population



Study Results

Primary Study Objectives

Pre-Intervention

	Time to Definitive Therapy (h)
Patient #1	Not completed
Patient #2	8.25 hours
Patient #3	2.00 hours
Average 5.125 hours	

Post-Intervention

	Time to Definitive Therapy (h)
Patient #1	60.75 hours
Patient #2	4.75 hours
Patient #3	20.00 hours
Patient #4	5.50 hours
Average 22.75 hours	

p-Value: 0.50

Secondary Study Objectives

	Pre-Intervention n=19 [%]	Post-Intervention N=9 [%]	p-Value
Therapy Appropriate For Identified Pathogen(s)	17 [89.47]	5 [55.56]	0.06
Empiric Therapy Resistance	1 [5.3]	3 [33.33]	0.08
No initial therapy, but treated on final results	–	–	-
No initial therapy, with no follow-up needed	–	–	-
Infection Required Hospitalization	–	–	-

Post-Implementation Provider Survey

- Currently in-progress
- Anonymous polling via SurveyMonkey®
- Eight multiple-choice questions
- One free-text response for additional feedback

Limitations

Single
Center

Small
Sample Size

Minimal
Provider
Interaction

New
Follow-Up
Process

Tourism
Industry

Conclusions

- Low rates of urine cultures for urgent care UTIs in the pre-intervention group
- Pharmacist discharge culture results did not improve time to definitive therapy
- No differences observed for:
 - Appropriateness of empiric therapy
 - Empiric therapy resistance rates

Future Directions

- Provider survey results analysis
- Presentation of results to P&T Committee
- Expansion of study to include:
 - Larger patient population
 - Analysis of drug-class prescribing trends

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