SBH Health System BRONX

Operation Wipe Out *Clostridium Difficile*

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Background

In the 3rd quarter of 2014, St. Barnabas Hospital was flagged by the New York State Department of Health (NYSDOH) with high rates of Hospital-Onset *Clostridium Difficile* Infections (HO-CDI).

Immediate action was taken with the establishment of the C. Diff Task Force, co-chaired by Dr. Judith Berger, MD, Chief Division of Infectious Diseases, and Lillian Burns, Director of Infection Control. This multidisciplinary committee was charged with the task of implementing and coordinating interventions that will decrease the rates of HO-CDI at SBH.

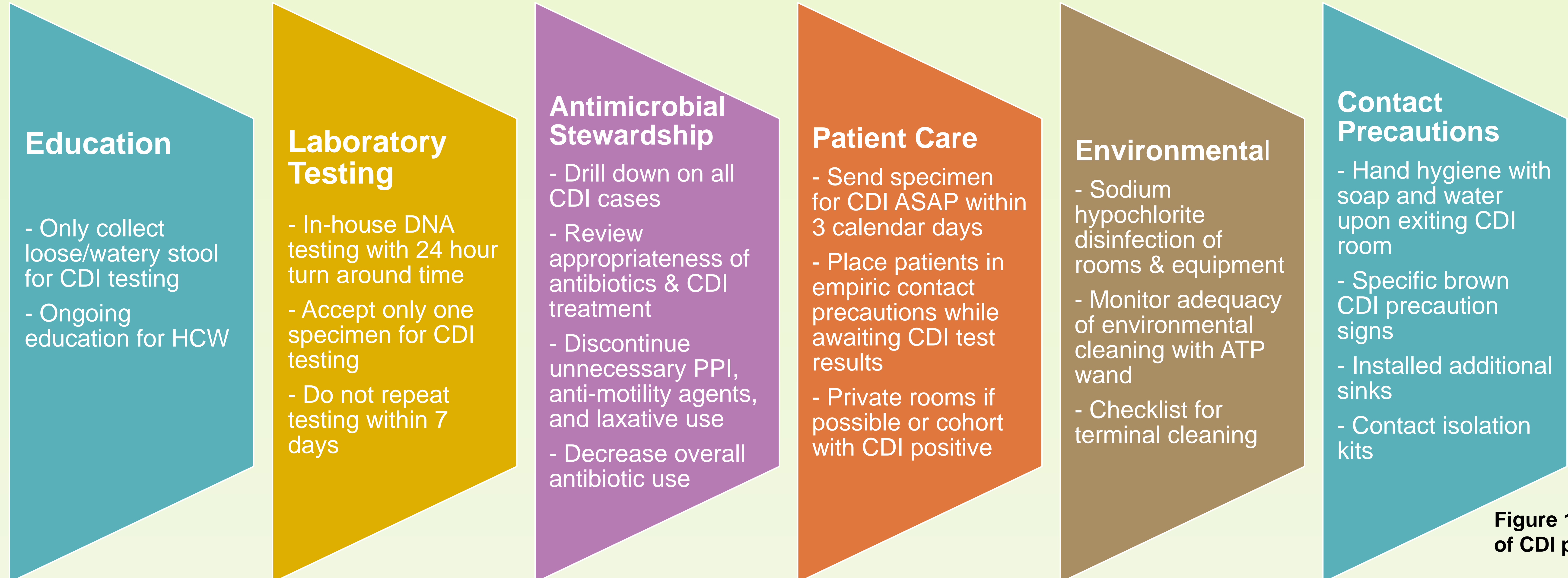

Figure 1. Fishbone diagram of CDI prevention at SBH

Aim

Decrease HO-CDI rates to achieve an Standardized Infection Ratio (SIR) <1

SIR: summary statistic used to track hospital acquired infections (HAIs) at a national, state, or local level over time

SIR adjusts for patients of varying risk within each facility.

SIR <1 indicates that fewer HAIs were observed than predicted.

Figure 2. Number of HO-CDI Cases at SBH 2014 - 2015

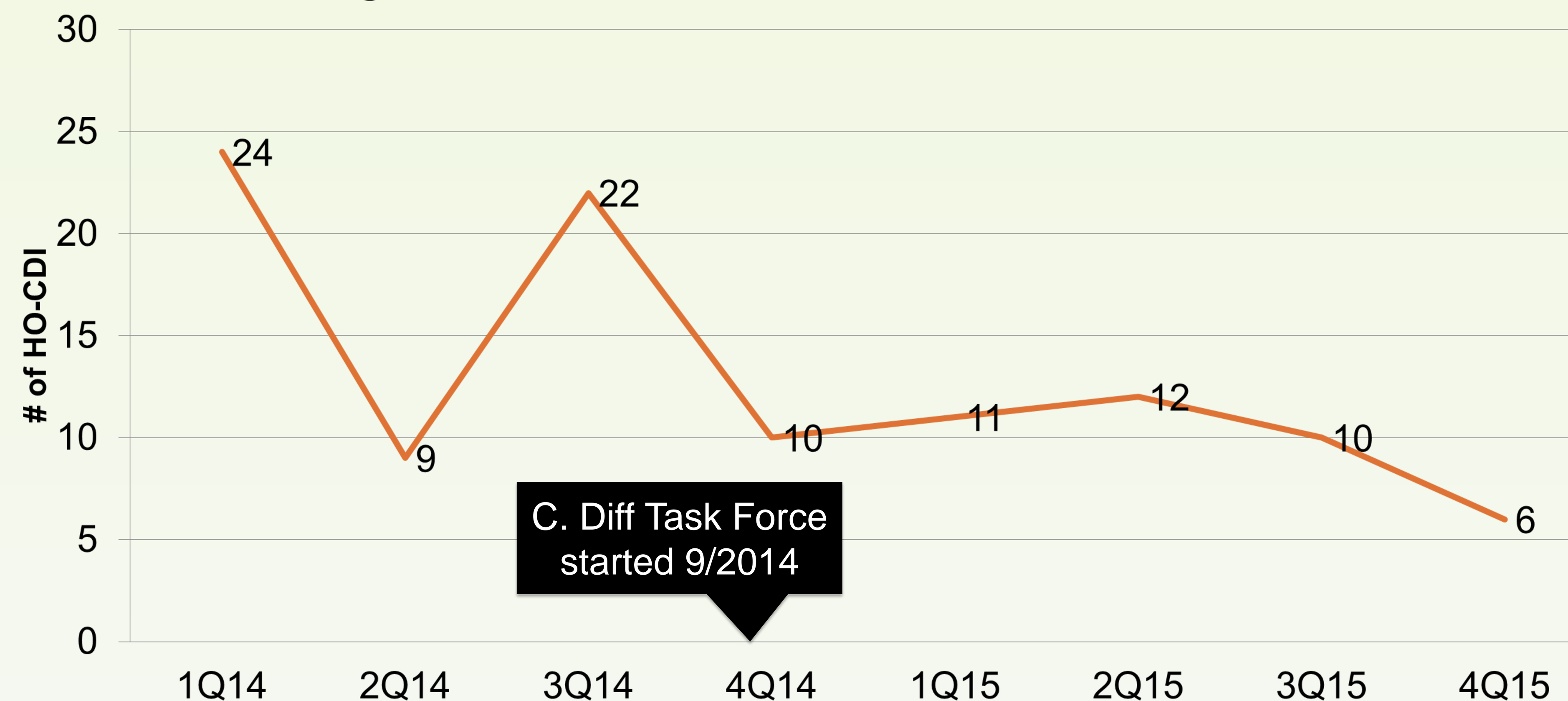

Figure 3. NHSN Data on SIR

Quarter	Hospital Onset CDI	Number Expected	Patient Days	SIR
1st QTR 2014	24	14.529	20,758	1.652
2nd QTR 2014	9	13.965	20,376	0.644
3rd QTR 2014	22	14.111	19,900	1.559
4th QTR 2014	10	13.047	18,696	0.766
1st QTR 2015	11	12.946	18,764	0.850
2nd QTR 2015	12	13.478	19,327	0.890
3rd QTR 2015	10	11.481	19,520	0.871
4th QTR 2015	6	8.356	14,407	0.718

Plan

Review of CDI cases to identify areas for improvement:

- Location of CDI
- Onset of diarrhea in relation to time of specimen collection
- Turn-around time of CDI test
- Cleaning and disinfection practices
- Isolation practices
- Concurrent antibiotics and CDI treatment options
- ASP initiative to decrease overall antibiotic use

Do

- 43% of patients with NHSN defined HO-CDI were due to delayed specimens not sent within 3 calendar days of admission
- 3 day turn around time for CDI testing
- More accurate CDI test needed
- Cleaning/ disinfection practices not standardized
- Isolation practices need updating
- Majority of patients on concurrent antibiotics and PPIs

Study

- Improved ED and inpatient practices to send specimen immediately and place patients on CDI contact isolation
- Implemented in-house CDI DNA testing (same day turn around time)
- Standardized cleaning/ disinfecting practices and use of ATP wand to monitoring cleanliness
- Revised isolation practices and policies
- Updated institutional CDI guidelines
- Implemented ASP initiatives

Act

Lessons learned:

- Multidisciplinary, ongoing effort
- Drill down on CDI cases to identify areas need for improvement
- Important to communicate issues and accomplishments hospital-wide

Next steps:

- Continue meetings
- Rotating QAs with each discipline to ensure ongoing reinforcement
- Establish PPI protocol
- Develop risk assessment to identify high risk patients