



ANTIMICROBIAL STEWARDSHIP – LOCAL HOSPITAL ASP ACTIVITY REPORTS AND CLINICIAN ENGAGEMENT STRATEGIES DECEMBER 2015

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**NEVER UNDER-
ESTIMATE THE
POWER OF DATA**

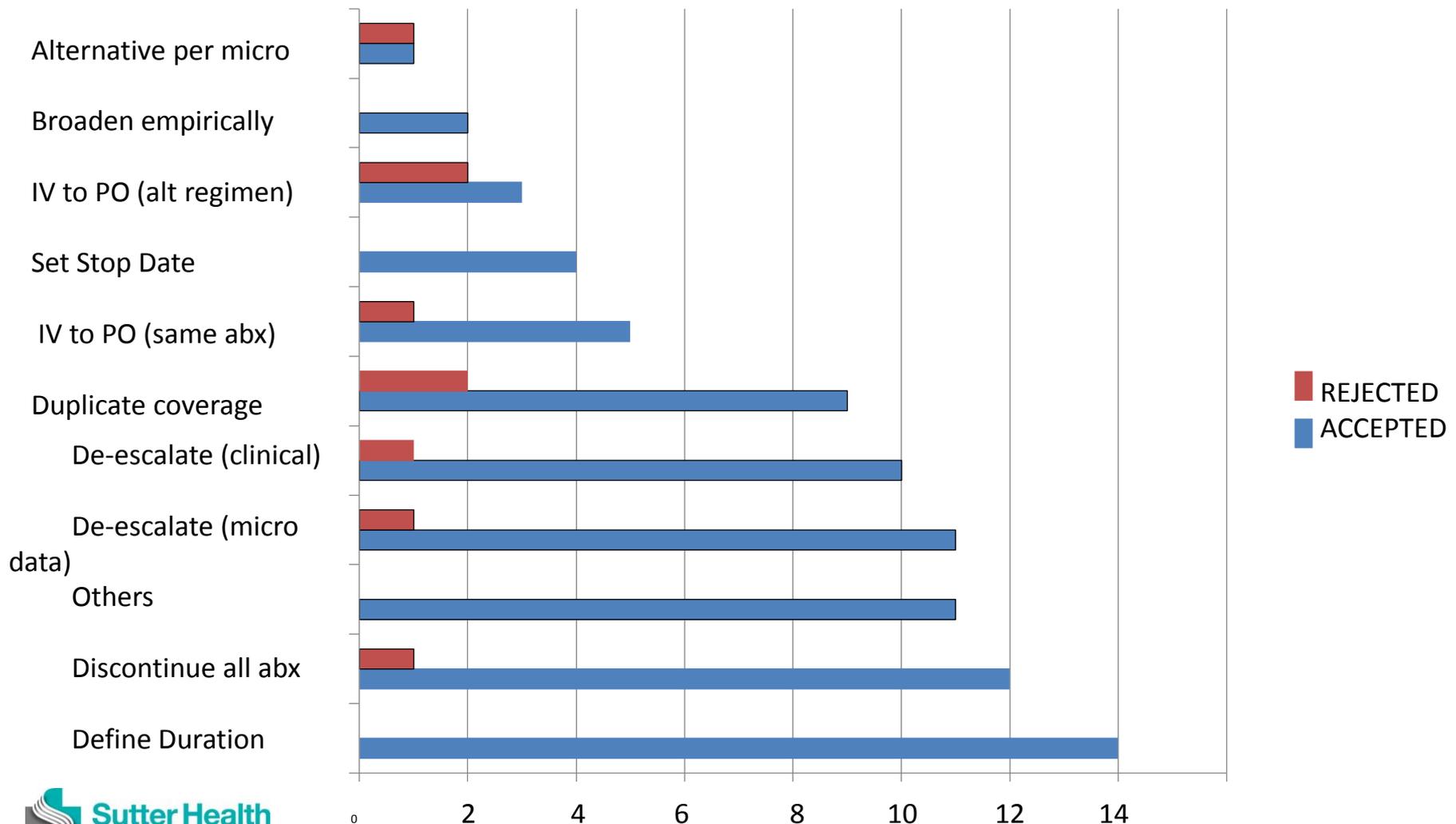
MEASURE ACTIVITIES (10/1-10/31)

Intervention Types	Response		ASP Interventions
	ACCEPTED	REJECTED	
Define Duration	14		14
Discontinue all abx	12	1	13
Others	11		11
De-escalate (micro data)	11	1	12
De-escalate (clinical)	10	1	11
Duplicate coverage	9	2	11
IV to PO (same abx)	5	1	6
Set Stop Date	4		4
IV to PO (alt regimen)	3	2	5
Broaden empirically	2		2
Alternative per micro	1	1	2
ASP Interventions	82	9	91

MEASURE ACTIVITIES (10/1-10/31)

Interventions Types	Distribution	Acceptance %
De-escalate (Clinical)	12%	91%
Discontinue All Antibiotics	14%	92%
De-escalate (Micro Data)	13%	92%
Others	13%	100%
Set Stop Date	4%	100%
IV to PO (Same Abx)	6%	83%
Define Duration	15%	100%
Alternative per Micro	1%	50%
IV to PO (Alt Regimen)	5%	60%
Broaden Empirically	2%	100%
Total	100%	87%

MEASURE ACTIVITIES (10/1-10/31)



WHAT DO YOU WANT TO SEE IN FUTURE REPORTS?

- More Pharmacy Interventions showing that pharmacists are doing a good job?
- **Only Initially**
- 100% Acceptance of Recommendations?
- **NO**
- Physicians using order sets for initial choice of antibiotics
- **YES**

WHAT DO YOU WANT TO SEE IN FUTURE REPORTS?

- Doctors using EDD (antibiotic time out) on day #3?
- YES
- Doctors defining the course of therapy as soon as realistic?
- YES
- Doctors writing daily progress notes discussing diagnosis, choice of antibiotics, response to therapy and expected duration
- YES

WHAT DO YOU WANT TO SEE IN FUTURE REPORTS?

- Denominator should not be pharmacy interventions.
- Denominator should be pharmacy plus physician interventions.
- A successful program has stewardship hard wired into the standard work of all physicians and all care givers working under the supervision of physicians.



DRILL DOWN THE DATA

DRILL DOWN RESULTS-DRUG/BUG MISMATCH

- Were the pharmacist recommendations appropriate?
 - Did the culture results truly reflect the situation?
 - Wound culture colonization
 - Blood culture contamination
 - Urine isolate not felt to be pathogen and not being covered
- Did the pharmacist present the recommendations in the right way, to maximize acceptance?
 - Ask whether the practitioner was aware of the culture results
 - Ask whether the practitioner thinks that the results warrant a change in therapy

DRILL DOWN RESULTS- OUTLIAR PROVIDER

- ID Physician Examples
 - IV to PO FLUOROQUINOLONES
 - Concerns about food-drug interactions
 - Use Lexicomp data; Develop system to ensure appropriate timing of meds
 - Unwilling to convert to oral antibiotics when surgeon or ObGyn thinks is reasonable
 - Lack of knowledge on standard antibiotics conversion to po for diseases e.g. PID
 - Provide references; If repeatedly problematic send to peer review

DRILL DOWN RESULTS- OUTLIAR PROVIDER

- Dual Coverage for “more severe infections”
 - Difficult to address since no data supports this but clinical concerns have to be considered in the decisions.



ANTIMICROBIAL STEWARDSHIP

Procalcitonin is now available

Negative Predictive Value is its strength

LRTI is where the data is strongest

<0.25 ng/mL strongly suggests absence of a bacterial LRTI

Falsely low values

- endocarditis

- localized, walled off abscess

- osteomyelitis

- checked too early (takes 2-4 hours to rise and 6 hours to peak)

- PCT drawn immediately after dialysis (very permeable through filter and levels can drop 80%, (20% with PD) and gradually recover over next 48 hrs)

- PCT levels must be drawn pre-dialysis

CKD (dialysis naïve, PD, and HD) usually have elevated baseline Procalcitonin levels (usually 0.25-1 ng/mL)



**ANTIMICROBIAL
STEWARDSHIP IS
MUCH MORE
THAN BUGS AND
DRUGS**

ICU DAILY ROUNDS CHECKLIST

- CENTRAL LINES - INDICATIONS
- INDWELLING URETHRAL CATHETERS – INDICATIONS
- AIRWAY – PLAN; SAT; SBT
- ADDITIONAL DRAINS - PLAN
- INFECTION/ANTIBIOTICS/CULTURES/DEFINING DURATION/DE-ESCALATION
- IMMUNIZATIONS
- SKIN ISSUES – WOUND CARE INVOLVEMENT
- EARLY MOBILITY – PT/OT
- DIET/ASPIRATION RISK/SWALLOWING EVAL
- PPI TO H2, IF NEEDED
- BLOOD SUGAR CONTROL/PLAN