Approaching a Reluctant Administration

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Disclosures

- Advisor HealthTrackRX
- Her presentation will not include discussion of unapproved or investigational uses of products and devices.

Learning Objectives

- Outline key elements of successful business proposal for ASP expansion
- Identify available resources to benchmark ASP resources

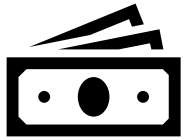
Typical Stewardship Program Pitch

- Global recognition of need to preserve antibiotics
- At (insert hospital name) need funding for X pharmacist and X physician to support stewardship
- If funded, the program will:
  - Reduce antibiotic cost
  - Combat AMR
  - Increase access to rapid diagnostics to improve patient care
  - Result in better patient care and fewer readmissions
  - Comply with accrediting agencies
- Summary, funding a program will have cost savings, and better patient outcomes through fewer resistant infections and antibiotic-related adverse drug events

Spellberg B et al. *OFID* 2016.

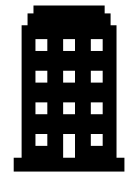
The Problem with the “Typical Pitch”

- Assumption
  - Proposals are being funded from ”additional” money



  - A well written, justified proposal will be accepted

- Reality
  - Hospital budgets are already fully committed for existing programs
  - Funding has to come from somewhere
  - Funded proposals are those with minimal/no impact on current budgets



Spellberg B et al. *OFID* 2016.

Keys to a More Successful Pitch

1. Spell out regulatory requirements
2. Write a plan that addresses costs and revenues
3. Structured job descriptions
4. Offer different levels of intensity
5. Clinical importance- but don't overstate!
6. Establish credibility

Spellberg B et al. *OFID* 2016.

When all else fails, read their guidance..

- Tips for an effective medical directorship strategy

1. Make sure the "duties" (the specific action the physician will carry out as part of this agreement) are measurable and actionable, avoiding mission-based or vision-based duties.
2. Do not attach too many duties to a medical directorship contract, as it can become inefficient and unenforceable.
3. Avoid non-specific or open-ended duties, as they may lead to confusion and difficulty in tracking and recording time.
4. Avoid having physicians turning in stacks of time logs at one time that account for a multi-month time period.
5. Ensure payment for the medical directorship is commensurate with the functions and duties of the directorship.

6. Mind the payment calculations. These can get complex due to different hourly rates for different duties or inconsistent monthly and annual maximums.
7. Make sure the process to track time (time logs) and approvals are easy for both doctors and hospital admin teams alike. If you're still on paper, that opens the door for compliance errors and additional administrative burden on teams.

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Costs and Revenues

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Calculating Cost Savings

- Types of interventions:
  - Drug sparing= cost of saved drug
  - Converting to more effective agent= difference in cost of antibiotics + savings from avoided infections[1]

Infection	Estimated Cost (2012 US$)
CLABSI	$45,814
VAP	$40,144
SSI	$20,785
CDI	$11,285
CAUTI	$896

1. Zimlichman E et al *JAMA* 2013;173:2039-46

Case Study: Using Benchmark Targets

Drug Category	Health System (DOT/1,000 patient days)	DASON Benchmark (DOT/1,000 patient days)	Delta	Cost Per Day	Potential Cost Savings
Fluoroquinolones	161	68	93	$8.50	$790.50
Anti-pseudomonal beta-lactam	364	198	166	$90.00	$14,900
Ertapenem	12	7	5	$230	$1,150
		Total			$16,841

*This is a simulated monthly calculation for a hospital with 1,000 patient days per month

Case Study: Preventing Infections

Using data on avoided infections:

- Sample hospital had 13 cases of hospital onset of CDI last

Drug Category	Health System (DOT/1,000 patient days)	DASON Benchmark (DOT/1,000 patient days)	Delta
Fluoroquinolones	161	68	93

- What if we set a conservative target to reach 113 DOT/1,000 patient days (30% reduction)?
- 26% of 13 is 3.3 cases is $11,285 (2012 dollars)

Potential cost avoidance: > $33,000

Antibiotic Rx for Hospitals; Proceed with Caution. If prescriptions of high-risk antibiotics in hospitals are reduced by 30%, then it could lead to26% fewer cases of deadly diarrhea infections; Source: CDC Vital Signs. March 2014. http://www.cdc.gov/vitalsigns.

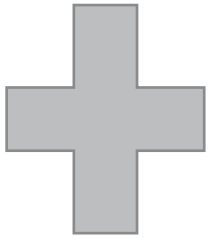
1. Zimlichman E et al *JAMA* 2013;173:2039-46

Calculating Increased Revenue

- From patient turn over and/or missed opportunity costs from admissions
- What you need:
  1. Determine how many bed days will be freed up by an intervention
  2. Average length of stay
  3. Payer mix for facility

Inter-qual Criteria for Admission SSTI

- Must have one of the following:
  - Human or animal bite to face or hand
  - Failed outpatient treatment AND progression despite 2 days of treatment,
  - unable to tolerate anti-infective, OR immunocompromised, OR cellulitis located over prosthesis or implant, OR there is petechia or purpura present
  - > 50% of a limb or torso or > 10% BSA
  - Any two of the following:
    - Temp > 99.4
    - WBC > 13,000
    - ANC < 500
    - Sustained HR > 100
    - Vomiting
    - Mental status change



Antibiotics

https://www.changehealthcare.com/solutions/interqual

Case Study: Capturing Revenue

299 Annual Admissions for Cellulitis

Total patient days= 1305

36% did no meet admission criteria

Avg LOS: 4.36

Benchmark LOS: 3.74

Cost per case: $5,939

Case Study: Capturing Revenue

299 admissions X 36% failing admission criteria (no reimbursement)=

107 avoidable admissions

107 non-reimbursed admissions at $5,939 per case =

$635,473 avoidable costs

Length of stay opportunity of 1 day for remaining 192 cases!

192 days/4.6 days average LOS= 41 additional admissions

Additional Resources for Cost Calculations

- AMMI Canada (includes ROI calculator): https://www.ammi.ca/?ID=126
- SHEA Examples: http://archive.shea-online.org/index.php/practice-resources/priority-topics/antimicrobial-stewardship/implementation-tools-resources

The Proposal

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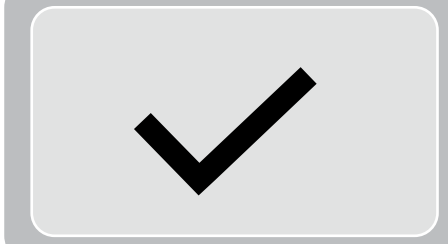
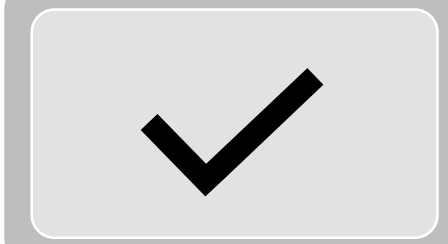
Questions to consider when writing a proposal?



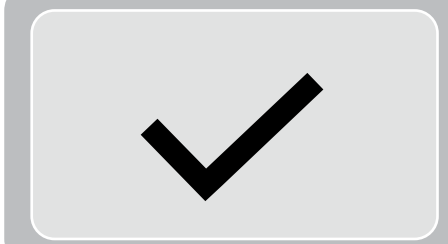
Does the program meet a regulatory need?

- Joint Commission
- DNV



Can the proposed work be fit into an existing FTE, or would an “easy” change free up time for initiatives?

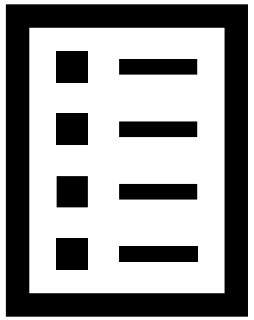
- Examples:
  - Medication reconciliation technicians screening for penicillin allergy
  - Using EHR to direct IV to PO switches leaving pharmacist time for restriction reviews

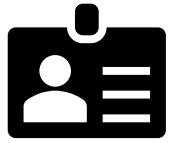


Does the proposed work meet another need at the facility

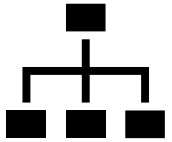
- Review facility strategic plan
- What is the current patient safety plan, antibiotics are a leasing cause of ADRs
- What are current facility goals around CDI and other HAIs

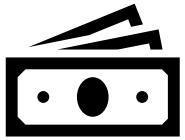
Elements to Include in Your Business Proposal





- Executive summary
- Needs assessment
- Regulatory assessment
- Market analysis
- Program structure
  - Include planned job descriptions
- Financial analysis
- Metrics of success
- Timelines





Adapted from: https://www.jcrinc.com/my-account/free-resources/

How Much Staff is Needed?

- Canadian Working Group

Personnel	FTE/1,000 acute care beds
Physician	1.0
Pharmacist	3.0
Project support/program administration	0.5
Data analyst	0.4

- CMS Draft Conditions of Participation

Morris AM et al *Antimicrobial Resistance & Infection Control* 2018;7:104
https://www.govinfo.gov/content/pkg/FR-2016-06-16/pdf/2016-13925.pdf

Personnel	FTE/124 acute care bed facility
Physician	0.1 (0.8/1,000 beds)
Pharmacist	0.25 (2/1,000 beds)
Project support/program administration	0
Data analyst	0.05 (0.4/1,000 beds)

Proposed Data from Real Programs

Table 1. FTE-to-Bed Ratio: Existing and Needed FTEs Reported by Programs

FTE	Bed Size				
	< 100 (n=15)	100-300 (n=91)	301-500 (n=82)	501 - 1000 (n=45)	> 1000 (n =11)
Existing MD FTE	0.27 (0-0.87)	0.24 (0-1.2)	0.26 (0-1)	0.37 (0-1.0)	0.46 (0.2-1.4)
Additional MD FTE needed	0.11 (0-0.8)	0.15 (0-1)	0.15 (0-1)	0.19 (0-1.5)	0.42 (0-2.4)
Existing PharmD FTE	0.61 (0-2)	0.63 (0-2)	0.89 (0-3)	1.2 (0-2.0)	1.5 (0.5-3.1)
Additional PharmD FTE needed	0.28 (0-2)	0.32 (0-1.4)	0.31 (0-2)	0.52 (0-2.5)	1.18 (0-7.0)
Total MD/PharmD overall FTE	1.3 (0.3-5.4)	1.34 (0-3.3)	1.61 (0-6)	2.24 (0.43-5.5)	3.56 (1.5-11.8)

1. Doernberg SB et al. *Clin Infect Dis* 2018;67:1168-74

Sample Business Plans

- American Academy of Pediatrics
- https://www.usj.edu/wp-content/uploads/2017/10/pdfs/longitudinal-outcome-measures-assessment-form.pdf

- Pro tip: Use the template provided by your institution ☺

Questions?

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