6th Capacity Building Seminar in Health Care Insurance

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Pricing the additional procedure(s) for the existing products

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Agenda

- Setting the scene
- Trigger to cover
- Key Stakeholders
- Premium Calculation
- Risk Considerations
- Case Study
- Summary

Setting the scene

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Setting the scene

- Focus of the presentation
  - Inclusion of treatment types excluded earlier due to cost / availability / approval (e.g. inclusion of peritoneal dialysis)
- It does not cover
  - Addition of new coverage / benefit (e.g. air ambulance)
  - Addition of add-on (e.g. hospital cash)

Trigger to cover

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Trigger to cover

- Competition – everyone else is doing it
- Unique Selling Point – First Mover's advantage
- Reasonability - results in savings
- Recent medical advancement – can't exclude?
- Regulatory push – can't help! ☺
- Align with best practices - FDA, NICE etc.

Key Stakeholders

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Key Stakeholders - Internal

Actuarial	• Premium Calculation • Risk identification & mitigation
Product Development	• Marketing material should appropriately reflect the change
Underwriting	• Should revise underwriting guidelines
Claims	• Should be onboarded to avoid rejection of legitimate claims

Key Stakeholders - Internal

Systems	• Update existing systems • Premium rate changes
Training	• Training about the inclusion of new procedure
Compliance	• Water-tight yet clear policy wordings
Sales	• Clear understanding of changes

Key Stakeholders - External

Regulator	• Share revised premiums, policy wordings and benefit design, if required
Reinsurer(s)	• Help in pricing – data / global practice • Revise existing contracts
Care Provider	• Reimbursement model change • Availability/inclusion of treatment
Customer	• Informed about contract changes • Treated fairly

Premium calculation

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Eligible Population

- Those expected to get treatment from same condition
- Those undertaking prevalent treatment option
- Filter by Selection Criteria
  - Age / Gender / Co-morbid conditions / severity levels

Estimate Frequency

- Past experience
- Industry players who have already implemented
- Research Papers / Publications
- Global market leaders' experience
- Reinsurers
- Actuarial Consultants
- Health Economics Consultants
- Medical Professionals

Estimate Severity

- Reinsurers
- Global market leader’s experience
- Empaneled Hospitals
- Medical Professionals
- Health Economics Consultants
- Analysis of hospital bills
- Cost of treatment overseas

Risk considerations

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Risks and Mitigation

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Anti-selection	• Co-pay • Exclusion of PED • Limit to group business
Credibility of assumptions	• Fetch information from multiple sources • Add risk margins
Co-morbidity	• Medical experts • Research publications

Risks and Mitigation

Worsening over medium-long term	• Monitor trends post treatment • Competent authority approval
Professional Risk	• Appropriate disclosure • Apply independent judgement • Build competence
Unknown Risks	• Brainstorm / seek views • Consult relevant experts

Case Study: Interventional Bronchoscopy for Airway Enhancement (IBAE)

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Problem Statement

To price inclusion of Interventional Bronchoscopy for Airway Enhancement (IBAE)^ for patients suffering from severe persistent asthma

^ The name of the actual procedure has been masked for confidentiality reasons. However, it has been ensured that the relevance of case study is not impacted

Setting the scene

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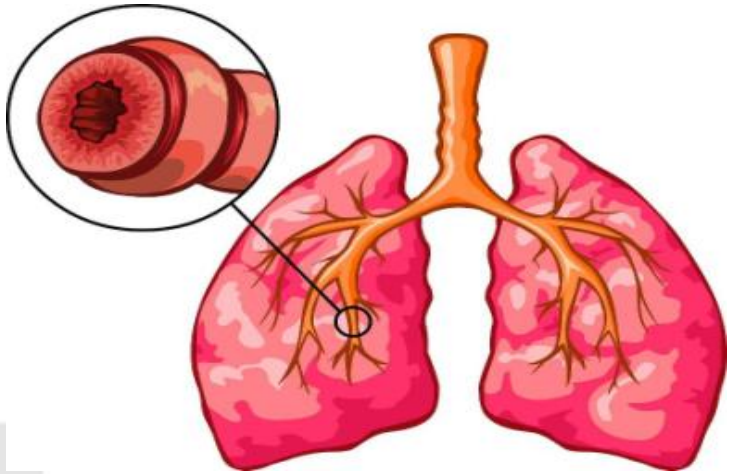
Asthma

- A chronic disease in the lungs where the airways can become smaller or narrower and make it harder to breathe, due to:
- Inflammation or swelling of the airways
- Mucus production



Prevalence of Asthma

- ~ 40% of respiratory disorders due to Asthma
- ~ 8% of respiratory hospitalization are due to Asthma
- ~1.4% ER admissions are due to Asthma
- > 70% of hospitalized spent 4 or more days in hospital.
- Average length of stay in hospital is ~5.5 days resulting in expenses of ~2.5L

http://www.lungindia.com/article.asp?issn=0970-2113;year=2016;volume=33;issue=6;spage=611;epage=619;aulast=Ghoshal

Global Acceptance

- Available in more than 32 countries including UK, USA, China, India
- Approved by FDA in 2010
- Endorsed by various guiding principle including the British Guideline on the Management of Asthma(BTS/SIGN), NICE and GINA
- Covered by insurers like United Healthcare, Cigna and Aetna
- Over 5000 patients have gone through the procedure

India Update on IBAE

- 20 patients have undergone IBAE
- None of the patients were re hospitalized due to any exacerbation post IBAE
- Less than 10 hospital (across India) are equipped
- Little over 100 Interventional Pulmonologist (across India)

Trigger to cover

Reasons to include

- Competition – everyone else is doing it 
- Unique Selling Point – First Mover's advantage 
- Reasonability - results in savings 
- Recent medical advancement – can't exclude? 
- Regulatory push – can't help! ☺ 
- Align with best practices - FDA, NICE etc. 

Premium Calculation

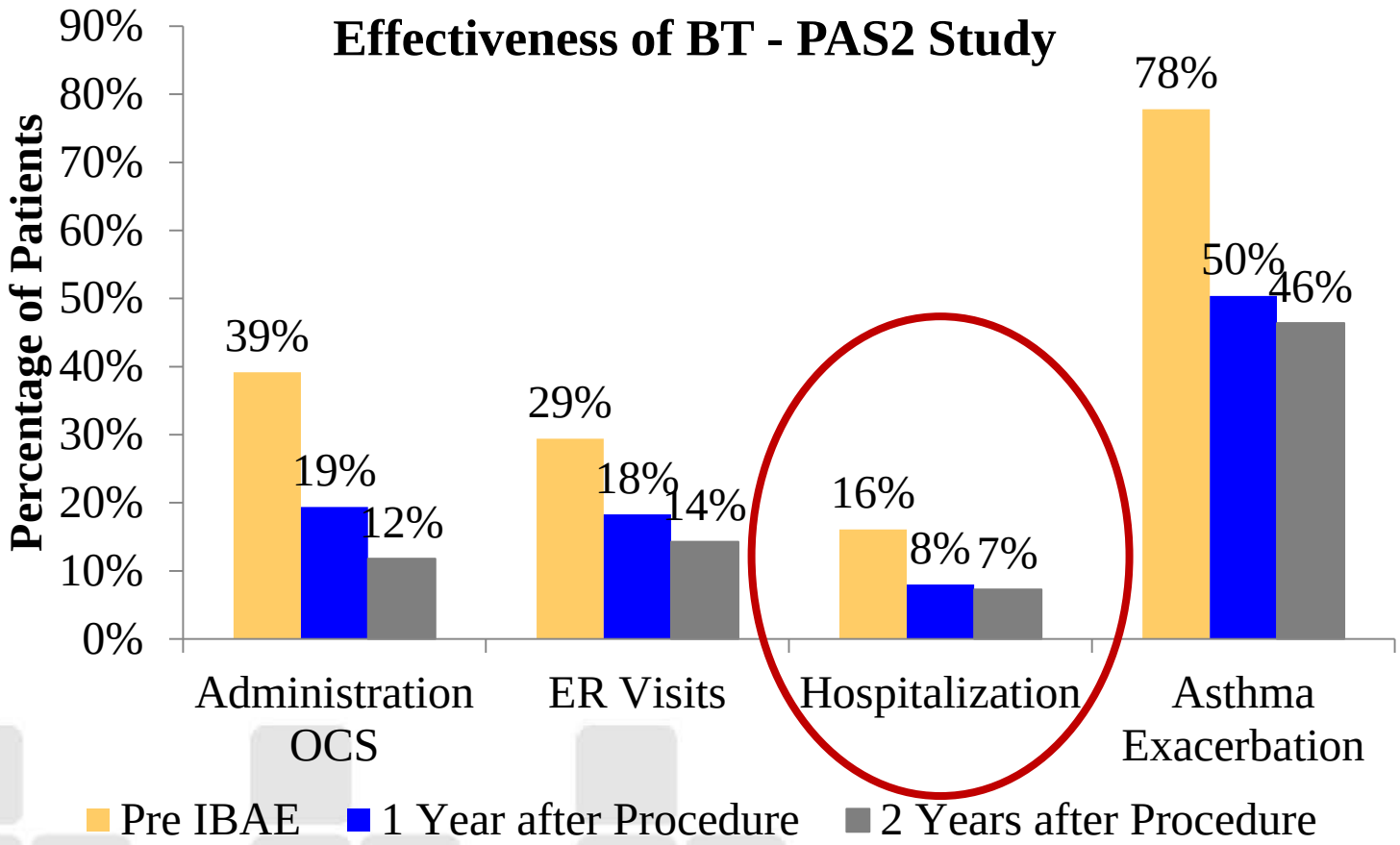
Eligible Population

- Age 18 +
- Severe Persistent Asthma
- Symptomatic despite treatment with stable maintenance medication
- Stable with respect to Asthma status
- No unstable co-morbid condition

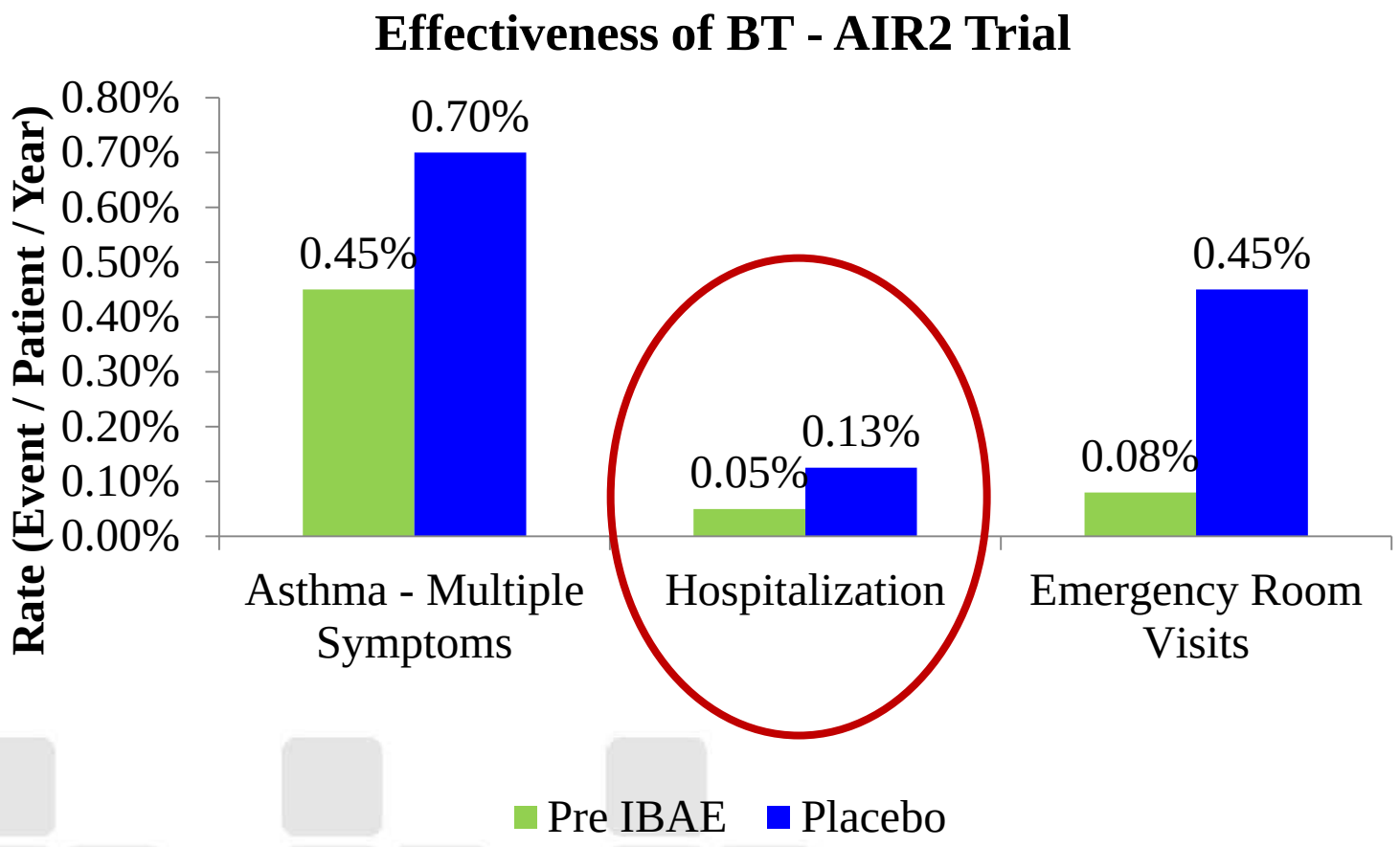
Risk Premium

Frequency and Severity – Impact of IBAE	
Average Incidence Rate – All HI Claims	10%
Average Incidence Rate - Respiratory	7%
Average Incidence Rate - Asthma	14%
Severe Persistent Asthma patients	4%
Eligible Population to be covered (>=18 yrs)	55%
Severity – IBAE Claims (INR)	450,000
Risk Premium – IBAE (INR)	9.8
Allowing for Reduced ER visits, exacerbations and Hospitalizations	Would Show savings

Frequency: Effectiveness of IBAE



Frequency: Effectiveness of IBAE



Risk Premium

Savings due to IBAE	
Risk Premium – IBAE (INR)	9.8
Original Average Claim Cost (INR)	1.5 lakhs-3.5lakhs
Average Claim Cost (Reducing Hospitalization by 50%) /Event /Year^	0.75 lakhs–1.75lakhs
Reduction in premium (Savings * Asthma Incidence * Eligible population	
Risk Premium Reduction (INR) – Per Annum	INR 1.7 to 4.0

^ The reduction in claim cost was found to be as high as 84% over 5 years

Risk considerations

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Risks and Mitigation

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Anti-selection	• Co-pay • Exclusion of PED • Stringent selection criteria
Credibility of assumptions	• Research papers /experts • Verified from industry • Allowance for risk margins
Co-morbidity	• Medical experts • Research publications / studies

Risks and Mitigation

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Worsening over medium-long term	• Relied on studies monitoring patients for 5 years • Approved by FDA in 2010
Professional Risk	• Each information is verifiable & shared along with source • Maintained independence • Learnt about IBAE
Unknown Risks	• Brainstormed @ IAI workshop • Reached out to experts e.g. pulmonologists

Summary

- Ever evolving medical field – improve / approve of new treatment options
- Actuaries might be required to price the options and consider associated risks
- However, multiple stakeholders need to be involved for the exercise
- The exercise needs utilizing treatment related data, research work and other studies for
  - Understanding the intricacies involved
  - Assessing cost (including savings) of including such option(s)
  - Bringing pros and cons on table

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