Issues to consider when choosing an inhaler for COPD

1. **Evidence of Efficacy** - consider what you are trying to achieve with the treatment
    a. **Breathlessness** – LABAs and LAMAs are effective – generally LAMAs produce greater bronchodilatation and are best tried first – adding LABA/LAMA combinations produce greater bronchodilatation
    b. **Exacerbation reduction** - inhaled steroids, used in combination with LABAs, have the strongest evidence of efficacy. LABAs and LAMAs have varying evidence for exacerbation reduction, with the strongest evidence in favour of glycopyrronium, tiotropium, and indacaterol, with lesser benefits with salmeterol and formoterol. Indacaterol/glycopyrronium combination has the best evidence for exacerbation reduction.
2. **Device** - choose a device to suit the patient (link to inhaler videos: http://wires.wessexahsn.org.uk/video-series/inhaler-technique/ or http://www.rightbreathe.com) eg
    a. Is there inspiratory flow insufficient for a powder inhaler, so they need an MDI (eg Fostair, Respimat)?
    b. Can they manage a traditional pMDI (eg Fostair)? Do they need a spacer?
    c. Could they manage to insert a capsule (eg Breezhaler, Handihaler)?
    d. Would they favour a device with less coordination and fewer steps (eg Ellipta, DuoResp Spiromax, Genuair)?
3. **Once daily or Twice daily** - some patients favour the ease of once daily, others prefer to have an extra dose per day
4. **Cost** - there is potential for significant cost savings with the newer devices; choosing the best value option will enable Dorset CCG to spend the resources on other services for patients
5. **Side effects** - eg
    a. Some patients develop palpitations with LABAs or dry mouth with LAMAs.
    b. LAMAs have generally not been tested in patients with a history of recent, unstable or life threatening cardiac problems (arrhythmias, IHD or heart failure), so should be used with some caution
    c. High dose inhaled corticosteroids increase fracture risk and risk of pneumonia, with some studies suggesting that budesonide-containing inhalers have a lesser increased risk of pneumonia than other inhaled corticosteroids.
6. **Stopping Treatments** – try stopping treatments that appear to give little or no benefit.
    a. Review patients 2-3 months after starting a new treatment and stop it if there is no symptomatic benefit
    b. Review inhaled corticosteroids if they have never had any COPD exacerbations
    c. Consider stopping mucolytics if there are no expectoration problems

Inhaled therapies for COPD in Dorset and their monthly costs

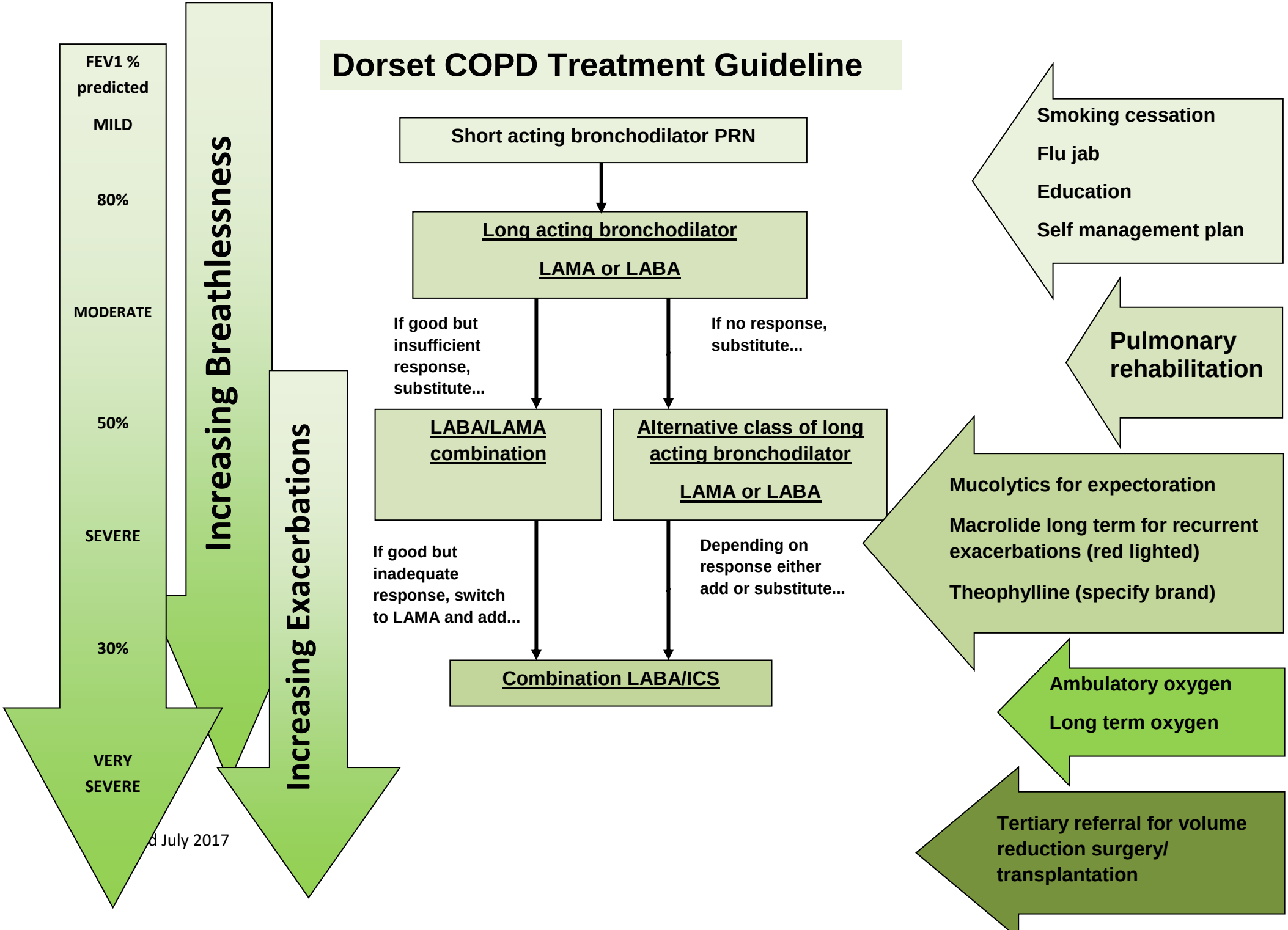
	Long Acting B2 Agonist	Long Acting Muscarinic Antagonists	LABA/LAMA combination	LABA/ICS combination
Once daily	Onbrez Breezhaler (indacaterol) 150 mcg od £32.19	Seebri Breezhaler (glycopyrronium) 50 mcg od £27.50	Ultibro Breezhaler * (indacaterol/ glycopyrronium) 110/50mcg od £32.50	
	Striverdi Respimat (olodaterol) 5 mcg od £26.35	Spiriva Respimat (tiotropium) ‡ 5 mcg od £23	Spiolto Respimat‡ (olodaterol/tiotropium) 5/5mcg od £32.50	
		Spiriva Handihaler (tiotropium) 18 mcg od £34.87		
		Braltus Zonda (tiotropium)* 10mcg od £25.80		
		Incruse Ellipta (umeclidinium) 62.5mcg od £27.50	Anoro Ellipta (umeclidinium/ vilanterol) 55/22mcg od £32.50	Relvar Ellipta (fluticasone furoate/vilanterol)* 92mcg/22mcg od £22
Twice daily	Atimos Modulite (formoterol) ‡ 12 mcg bd £18.04	Aclidinium bromide 400 mcg bd £28 .60	Duaklir Genuair (aclidinium/formoterol) 340/12mcg bd £32.50	Fostair ‡ (beclometasone/formoterol) 100mcg/6mcg 2puffs bd £29.32
	Formoterol Easyhaler* 12 mcg bd £11.88			Symbicort Turbohaler (budesonide/formoterol) 400mcg/12mcg bd £38.00 DuoResp Spiromax (budesonide/formoterol) 320/9mcg bd £29.27
	Salmeterol* 50 mcg bd £29.26			Seretide Accuhaler (fluticasone proprionate/salmeterol) 500/50 bd, £40.92

Updated July 2017

*** best value DPI for that dose**

‡ best value MDI for that dose

Dorset COPD Treatment Guideline



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