



RECOMMENDATIONS ON SETTING UP A SEVERE ASTHMA CLINIC IN MALAYSIA

1.0 Definition of Severe Asthma

Severe asthma is asthma that remains ‘uncontrolled’ despite optimized treatment with high dose inhaled corticosteroids (ICS)-long-acting beta2-agonist (LABA), or that requires high dose ICS-LABA to prevent it from becoming ‘uncontrolled’. [1]

2.0 Definition of Severe Asthma Clinic

Severe asthma clinic is a systematic and organized clinic dedicated for severe asthma patients.

Services of severe asthma clinic includes provision of a systematic approach to the management of the disease and aids in confirming the correct diagnosis, managing comorbid conditions that may mimic or aggravate asthma, and provides the environment to optimize treatment and asthma self-management skills and education. A severe asthma service is also the ideal environment for research opportunities, as well as for trialling add-on therapies and hence can improve patient outcomes and clinical practice. [2]

3.0 Scope

The scope of this recommendation paper is for adult severe asthma patients (12 years and above).



4.0 Central Components Needed to Set Up Severe Asthma Clinic

(1) Multidisciplinary Coordination		
Staff	Core Members <ul style="list-style-type: none"> ▪ Pulmonologist ▪ Pharmacist ▪ Respiratory Technician ▪ Nurse 	Additional Members <ul style="list-style-type: none"> ▪ Dietitians ▪ Physiotherapist ▪ ENT Specialist ▪ Psychologist/Psychiatrist ▪ Speech Therapist ▪ Gastroenterologist ▪ Radiologist
Training	<ul style="list-style-type: none"> ▪ Regular trainings should be planned and conducted for the severe asthma clinic staffs. ▪ Recommended methods of training: Workshops and continuing medical education (CME) meetings ▪ Targets should be set for the staff to complete and achieve annually. Examples of metrics include CPD points collected from severe asthma-related trainings, and the number of courses/meetings attended. 	

(2) Healthcare Resources	
Facilities	<ul style="list-style-type: none"> ▪ Consultation room ▪ Treatment room ▪ Resuscitation facilities and equipment ▪ Access to laboratory tests and blood draw ▪ Access to total IgE & specific IgE tests ▪ Access to echocardiography test ▪ Access to bronchoscopy/bronchial thermoplasty



(2) Healthcare Resources

Equipment	Mandatory	Optional (Good to possess)
	<ul style="list-style-type: none"> • Peak Flow Meter • Chest x-ray • Spirometer • FeNO • Full Lung Function Test • CT Scan • Device for inhaler technique assessment • Placebo inhalers 	<ul style="list-style-type: none"> • Skin prick test • Sleep Study • Impulse oscillometry system (IOS) • Bronchial challenge test

(3) Management Approach

Treatment	
	<ul style="list-style-type: none"> ▪ Assessment of adherence ▪ Treatment protocols for severe asthma based on current guidelines ▪ Asthma Action Plan for patients ▪ Access to standard treatments for asthma, including ICS-LABA therapies ▪ Access to triple therapies ▪ Access to treatments for severe asthma comorbidities ▪ Access to biologics ▪ Access to bronchial thermoplasty ▪ Access to sublingual & subcutaneous immunotherapies

(4) Patients

Source of Patients	
	<ul style="list-style-type: none"> ▪ Referral from primary and secondary care institutions ▪ Referral from other tertiary institutions with no severe asthma clinics ▪ Patients who are already following up at the clinic



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(cont.) (4) Patients

Patient Database	Should be in place to monitor patient outcomes, patient audits and for possible inclusion in research data collection
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(5) Services

Activities in Clinic	<ul style="list-style-type: none">a) Assessment & confirmation of diagnosisb) Assessment & treatment of comorbidities and asthma triggersc) Phenotyping & endotyping of patientsd) Asthma education & counsellinge) Treatment of severe asthma diseasef) Follow-up & optimization of self-management skills
Awareness	<ul style="list-style-type: none">▪ Disease awareness activities to the public (for example, pamphlets, social media sharing)

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References

1. Global Initiative for Asthma. Global Strategy for Asthma Management and Prevention. Updated 2021. Available from: www.ginasthma.org. Accessed 25 November, 2021.
2. McDonald, V. M., Vertigan, A. E., & Gibson, P. G. (2011). How to set up a severe asthma service. *Respirology*, 16(6), 900-911.