



# Multidisciplinary Asthma Service

## Key Elements of Success

**Vicky Worrall**  
Respiratory Nurse Specialist



# Key elements of success for MDAS clinic

- Clinic set up
- Team roles/responsibilities
- Empowerment
- Data-driven, evidence-based, person-centered care
- Annual review
- Joint allergy clinics
- Transition model
- 'Going the extra mile'



**Multidisciplinary  
Asthma Service**



# MDAS Team



Alder Hey Children's  
NHS Foundation Trust

Consultants-Prof Ian Sinha & Dr Chris Grime



Respiratory Nurse Specialists- Vicky Worrall & Lynsey Brown



Respiratory Physiotherapist- Claire Hepworth

Respiratory Pharmacist – Andrew Lilley



Psychologist- Lucy Gait

MDAS Pathway coordinator- Laura Marsh





# MDAS clinic

Clinic held on Monday afternoons:

- Week 1 - MDT meeting, followed by Injection clinic
- Week 2 - 3 NEW & 7 FU
- Week 3 - no clinic, time for nurses to do home/school visits, physio to do additional assessments
- Week 4 - 3 NEW & 7FU



**Multidisciplinary  
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# MDAS Team Roles

- **Ian (Consultant)**
  - Asthma lead.
  - National representation.
  - Annual reviews.
- **Chris (Consultant)**
  - Coordinate MDT meeting.
  - Prescribe for injection clinic.
    - Blue-tech forms.
  - Organise MDAS admissions.
- **New consultant**
  - Links with general paediatrics.
  - Primary care initiatives.
    - Feed into Beyond project.
- **Vicky (Nurse)**
  - 6-Monthly patient audit.
  - Lead for school visits.
  - Lead for home visits.
  - Lead for network nursing.
  - Transition link nurse.
- **Lynsey (Nurse)**
  - 3-Monthly injection patient audit.
  - Lead for injection clinic.
  - Allergy link nurse.
  - Research link nurse.
  - *Endocrine link nurse.*
- **Lucy (psychologist)**
  - Links with similar roles nationally
- **Claire (Physio)**
  - Lead of dysfunctional breathing & fitness.
  - Fitness and breathing assessments outside clinic.
- **Andrew (Pharmacist)**
  - Pharmacy advice & support
  - Adhoc clinic support
- **Laura (PCO)**
  - Admin support links with network







# MDAS clinic- practical steps to empowerment

- Helping CYP tailor their condition around their life, promoting self-management, and enabling shared-decision making
- Data-driven, evidenced-based, person-centered care
- Respecting the cognitive development of adolescents
- Poverty-proofing our services



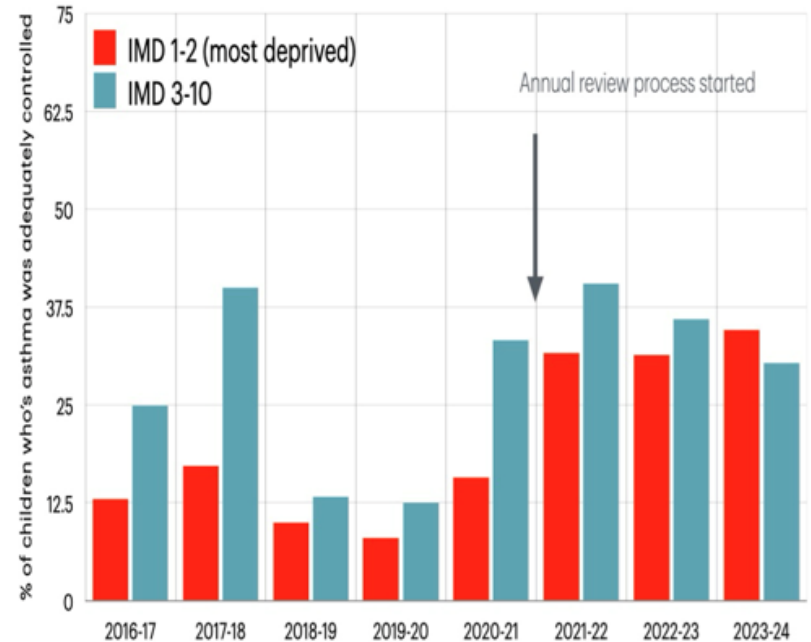
# Data-driven, evidence-based, person-centered care

MDAS@alderhey.nhs.uk



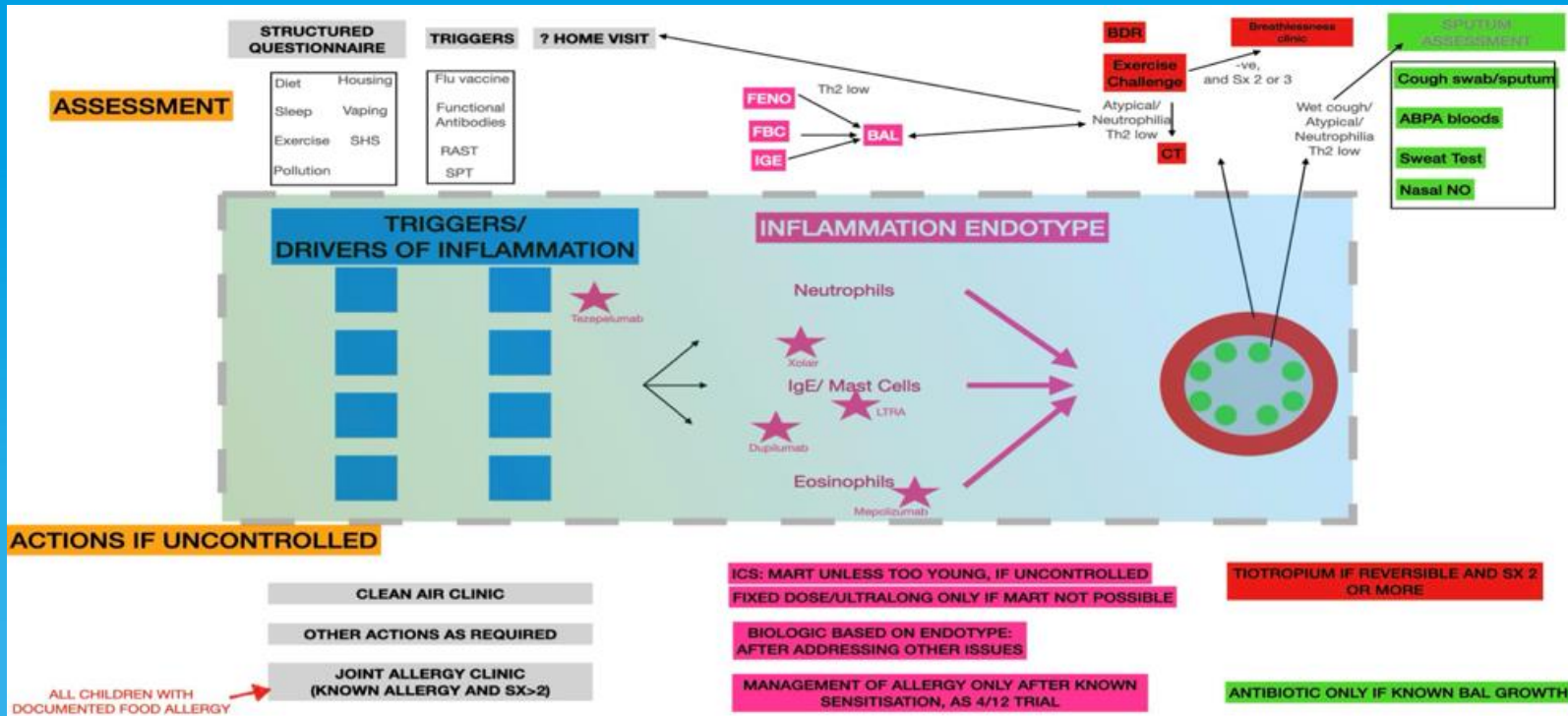
ASTHMA CARE IS:  
33% INHALED STEROIDS  
33% SELF-ESTEEM  
33% HEALTHY LIVING  
1% EVERYTHING ELSE

% of children achieving asthma control each year



# Alder Hey Multidisciplinary Asthma Service

## Uncontrolled Asthma Decision Aid



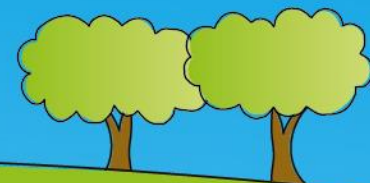




# Alder Hey Multidisciplinary Asthma Service - Sleep

## Start with history

- Daytime routine
- Bedtime routine
- Golden hour before bed- sleep hygiene
- Ability to fall asleep
- Frequency of waking
- Breathing during sleep- snoring, pausing
- Ability and quality of waking
- Daytime behaviour





# Alder Hey Multidisciplinary Asthma Service

## Sleep Hygiene

### Sleep hygiene

- Warm shower or bath
- Calming environment
- Relaxing activity for 40 minutes before getting into bed
- Consider preferences for room light and temperature
  - Cool, dim environments best for sleep
- NO SMART PHONES, TABLETS, COMPUTERS OR TELEVISION FOR 40 MINUTES BEFORE BED.





# Alder Hey Multidisciplinary Asthma Service Physio

## Assessment

- Breathing pattern assessment (look at if the person is breathing through nose or mouth, upper or lower chest, noisy or quiet, yawning/sighing or not)
- Assessment on activity levels
- Fitness test and holistic healthy living (when fully staffed with therapy assistant)

## Treatment

- Discussion around physical activity and offer 1:1 clinic after for exercise assessment/treatment sessions/breath control with exercise
- Treatments for dysfunctional breathing including breathing retraining exercise, nasal breathing/congestion exercises, offer 1:1 follow up clinic sessions and/or after school (small group sessions)





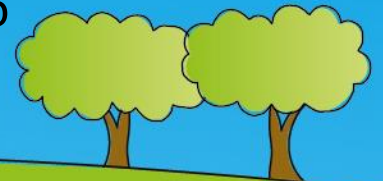
# MDAS clinic – Nurses Role

- Clinics
- Home visits/assessments
- School visits/training/action plans/liaison
- Transition
- Liaison with primary care/local/network teams
- Advice/support for patients/families via MDAS email



# MDAS clinic - Annual Review Process

- March every year- every patient currently on MDAS database
- Consultant prep in advance using decision aid
- Database updated-documents available for team
- Attend Anywhere- whole team approach
- AR Clinics coordinated into Liverpool patients and Non-Liverpool Patients
- AR clinic letter proforma to CYP/family/GP/local team
- AR clinic letter used to provide essential information to adult team as part of referral/transition process







# Multidisciplinary Asthma Service Joint Allergy Clinic

- 4 joint clinics annually with Alder Hey Allergy Consultant
- 4 allergy patients per clinic
- Consultation includes:
  - Assessment
  - SPT
  - Treatment
  - Action plans
  - Advice/support

# MDAS Injection clinic



- 100 -120 current MDAS patients
- 10-15% on injectable treatment (variable with new referrals/transition)
- Recently transitioned 5 patients on injectable treatment:
  - 3 Dupilumab
  - 1 Mepolizumab
  - 1 Omalizumab
- Remaining 10 patients:
  - 5 Dupilumab
  - 5 Mepolizumab
- Majority on Homecare





# MDAS Back to school packs



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Early August every MDAS patient receives a personalised back to school pack, in the post, containing:

- Personalised asthma action plan for home.
- Personalised asthma action plan for school.
- Inhaler device instructions for all their devices.
- Asthma advice sheet for going back to school.
- Physio/Exercise advice sheet.
- Sleep advice sheet.
- Wellbeing advice sheet.
- Relevant additional info- local services





## Reducing asthma exacerbations after the start of the school year: empowering children and families

Brown L., Worrall V., Grime C., Hepworth C., Harper H., Holden K., Lawrence P., Gait L., and Sinha I.

**Background:** Week 38, corresponding to the return to school in September, can see an increase in asthma attacks and hospital admissions. New innovative and inclusive ways of empowering Children and Young People (CYP) and families to manage asthma effectively in this period are needed to try to reduce this risk.

**Aims:** We created and provided CYP attending our Multidisciplinary Asthma Service (MDAS) clinic with back to school packs, aiming to empower CYP and their families with tools for improving asthma management to prevent/reduce asthma attacks.

**Methods:** The specialist MDT developed additional advice and action plans to provide to CYP, families and schools. This combined to form a back to school pack sent to our 120 patients. This included personalised asthma action and school plans, age and treatment-specific inhaler device instructions, and advice on wellbeing/exercise/sleep to empower children and families to enable them to feel prepared and support schools to manage asthma effectively. A questionnaire was sent out to parents via email 3 months after the return to school. Parents were also asked to complete the questionnaire via a QR code when in clinic.

**Results:** Our response rate from the questionnaires was 15%. A large proportion of parents (82%) found the back to school pack to be helpful. Figure 1 shows that, in particular, the asthma plans (71%) and school plans (77%) were most useful. Parents felt the packs prevented additional visits to school from asthma nurses and helped them manage their child's asthma after going back to school. The preferred way to receive the packs was via email.

**Conclusion:** We have shown that in CYP attending our MDAS clinic, back to school packs were useful and families felt prepared and empowered to reduce the risk of asthma attacks. Future analysis could look at number of asthma attacks over the school year. Alternative approaches to data collection may need to be considered in the future to improve response rate.

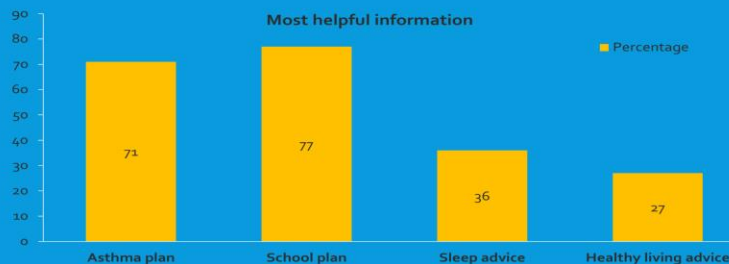
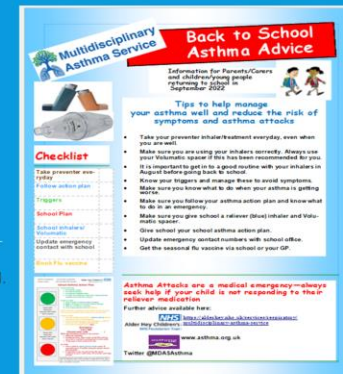


Figure 1. Percentage of patients who found each section of the back to school pack helpful.



For more information and contact details please scan





# Model of Care for MDAS Transition

## Year 10

- Joint clinic
- Alder Hey
- Twice yearly

## Year 11

- Joint clinic
- Alder Hey
- Twice yearly

## Year 12

- Meet & Greet evening
- Joint clinic
- RLUH





# 'Going the extra mile' MDAS Fruit Bowl



- Funding secured via Alder Hey Children's charity 'Bright Ideas' grant.
- MDAS Fruit bowl initiated again.
- Local greengrocer identified and weekly deliveries of a variety of fresh fruit to the hospital arranged.
- CYP and families get to enjoy choosing fruit from the fruit bowl to eat in clinic and/or take home.
- Open conversations in clinic about healthy eating/healthy living and overall benefits as CYP and families feel 'cared for'.
- Gather feedback from CYP and families





# Multidisciplinary Asthma Service

**Thank You  
Any Questions?**