



# School Based Support

Launch of the AMS-MOH Clinical Practice Guidelines on Attention Deficit Hyperactivity Disorder (ADHD)

# Overview

- Impact of ADHD on school achievement
- Academic intervention
- Classroom behaviour management
- Access arrangements
- Guiding principles

# ADHD and Academic Achievement

- Meta analysis\* of 72 studies since 1990
  - Lower overall achievement relative to controls
  - Poor academic attainment is evident beyond standardised tests, so lower scores not primarily attributable to situational factors, e.g. negative test taking behaviour

\*Frazier et al (2007), Jnl Learning Disability, 40:49-5.

# Significant overlap between ADHD and other Learning Disorders

*(Reviews: Cantwell & Baker, 1991; Tannock & Brown, 2000)*

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Epidemiological & clinical studies indicate that the rates of overlap are greater than expected by chance between ADHD and:

- **reading disorder: 15% - 40%**
- **math disorder: 10% - 25%**

# Implications for Intervention

- Focusing on the behaviour and attention is important but not enough
- Medication and behavioural modification are important
- These make the child with ADHD available for teaching and learning
- Teaching and learning strategies that compensate and accommodate for the specific learning deficits must be used

# Examples of school-based support programmes for learning

- Stellar Programmes (Strategies for English Language Learning and Reading)
- Learning Support Programme (for EL and Math)
- School-based remediation for students with persistent literacy difficulties (SDR - dyslexia)
- iCAN (Improving Confidence in Numeracy)
- Subject-based remediation or targeted group-based skills training by teachers and/or allied educators

# School-based support programmes for learning

- Access to specific provisions is based on students' individual educational needs, and not on disability diagnosis per se
- Fit between child's needs and type/intensity of support is based on '**R**esponse **T**o **I**ntervention' (RTI) (*not 'response to illness'*)

# Response to Intervention Approach

## Tier 3

Intensive specialised remediation for pupils with persistent difficulties

3 to 5%

## Tier 2

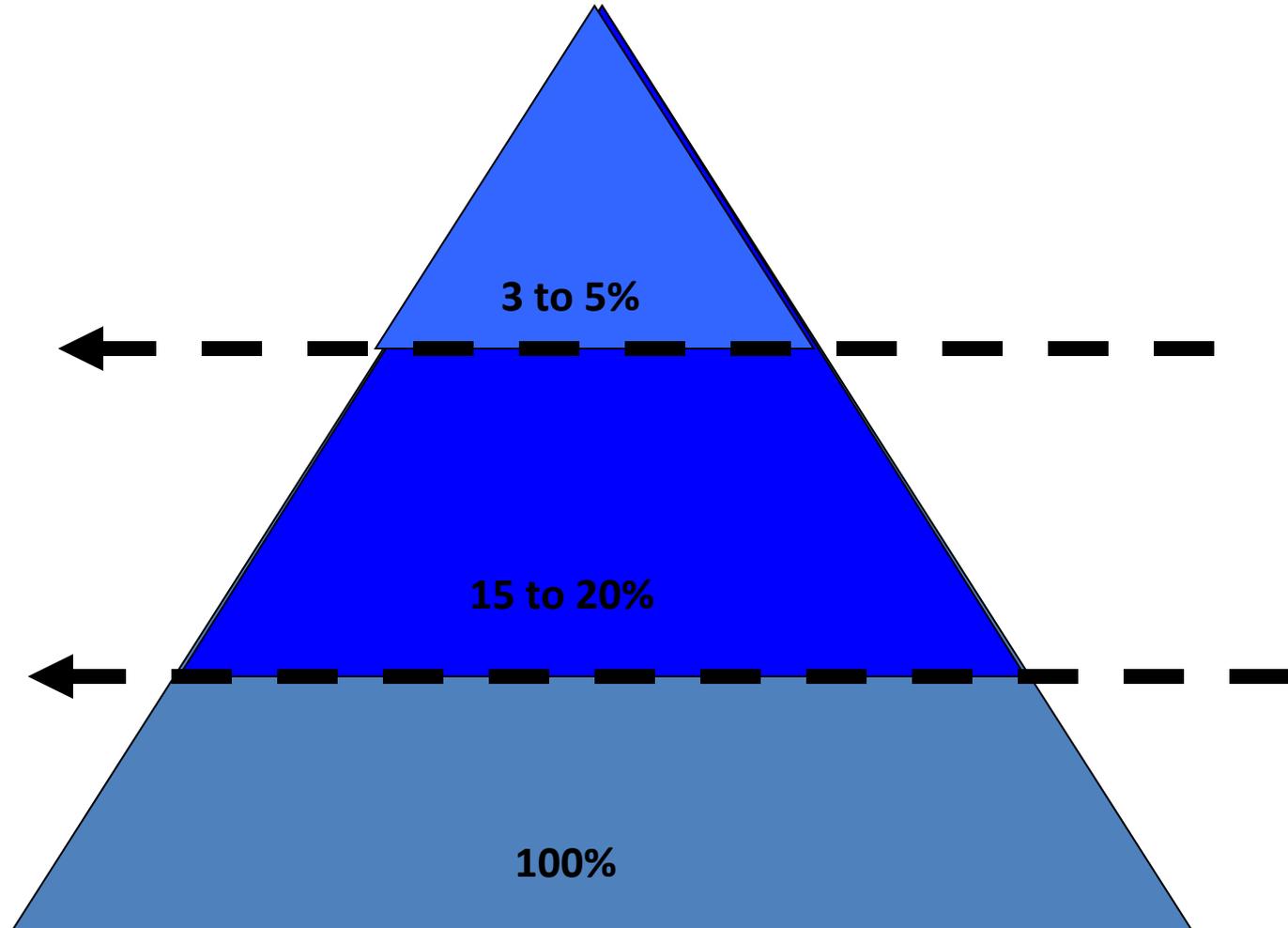
Additional intervention for 'at-risk' students

15 to 20%

## Tier 1

Structured language and literacy instruction for all students

100%



# Academic Interventions

- “ A diagnosis of ADHD on its own does not imply that a child has comorbid learning difficulties or disorders...However (they) are at risk of academic underachievement...”
- “..should be made in consultation with educational professionals who work closely with the child in learning or school context”

# Classroom behaviour modification

- Behaviour management strategies can be used to reduce overt behavioural systems in ADHD and foster academic engagement
- Functional Behaviour Assessment (FBA) can help to identify triggers or antecedents of child's negative behaviours in the classroom and used to identify strategies for behavior support

# Strategies for Behavioural Management of ADHD

- Manipulating **consequences** (reactive), e.g.
  - Token reinforcement
  - Verbal reprimands
  - Self-monitoring
  - Time-out from positive reinforcements

- Manipulating **antecedents** (proactive), e.g.
  - Post clear & explicit rules
  - Adjust workload
  - Modify instructions
  - Providing choices

# Antecedent focused behaviour support strategies

- Create classroom environment that is positive, encouraging and supportive
- Teach rules and remind students of the rules and expectations frequently
  - Make sure students understand the rules (teach, model and practice the desired behaviour)
  - Use visual and verbal cues to aide memory
- Specific and immediate feedback
- Create structured routines
  - For work activities, tasks, transitions, meterials
  - Children with ADHD often need the external scaffolds long after others have internalised them

# Consequence oriented behaviour support strategies

- These work too! But...
  - By themselves, they do not teach the more appropriate behaviour or skills
  - They **reinforce** existing behaviours (negatively or positively)
  - Efficacy depends on frequency and timing of reinforcers given.
  - Children with ADHD need more frequent and immediate feedback than others
- Token Economy
  - Tokens/secondary reinforcers when student show desired target behaviour (SMART targets needed)
  - Hierarchy of rewards (best individualised)
  - Efficacy highest when it is planned and implemented as a class-wide system
- Using self-management and self-monitoring to observe and record own behaviour, e.g.
  - Checklist of tasks
  - Countdown-timer
  - iPad based applications
  - “Countoons”

# iPAD based organisers and visual schedules

amaysim 3G 12:33 PM 92% amaysim 3G 12:33 PM 92%

Main Screen **Goals and Improve...** Main Screen **Diary** Calendar

Goals	# of times in Diary
★ Arrive at work on time 27/09/2012	2
★ Don't interrupt people 27/09/2012	0
★ Clean up after self 27/09/2012	1
★ Enter a new goal dd/mm/yyyy	0
★ Enter a new goal dd/mm/yyyy	0

Things to improve	# of times in Diary
● Too quick to anger	2
● Rushing through explanations	2
● Your most common "To impr..."	0

**Average Daily Happiness** 3 / 5

**Achievements**

- 🎯 Arrive at work on time  
notes: Got in at 8.50
- 🎯 Clean up after self  
notes: Cleaned up after making coffee
- 🎯 Choose or enter new achievement  
notes:

**To improve**

- 🎯 Rushing through explanations  
notes:
- 🎯 New to improve item  
notes:

Rating for the day : 3 / 5 **OK**

My nighttime schedule

First I need to

eat dinner  2:00

...

...

...

...

...

Then I can

read a book  or 

## Picture Countoon

NOT 



DO 



My Count



My Count



Pictures are inserted for fair-pair behaviors: one behavior to decrease and an alternate behavior to increase. Choice of 5 or 10 smiley/frowning faces close X

# Countoons

**Do my Math work**



**Off task**



**What happens?**



The student needs to complete at least six math questions and not be off-task for more than five times before he gets reinforces/choice activity

# Access Arrangements

- “Access arrangements are pre-agreed reasonable adjustments that are made to examinations, tests and assessments in certain subjects..”
- “The diagnosis of ADD alone is insufficient for the approval of access arrangements during national examinations”.
- “Not every student with ADHD needs access arrangements, not do all students with ADHD need the same types of access arrangement.”
- “Extended time for examinations does not necessarily benefit all children with ADHD”

( See ADHD CPG 4.1.5.4)

# Access Arrangements for national exams

## Purpose

- Access Arrangements
  - To compensate for the limitations imposed by the student's disability to demonstrate their skills, knowledge and understanding while maintaining the integrity of the assessment.
- Exemption from Mother Tongue Language or a component in a subject area (e.g. oral examination, listening comprehension)
  - To compensate students with SEN for skills they are unable to demonstrate even when appropriate arrangements are given.

# Access arrangements for national exams

## What Access Arrangements to Recommend

- Recommendations for special examination arrangements are based not solely on a particular disability but rather on the student's **specific needs**.
- Not every student with a disability needs special arrangements, nor do all students with the same disability need the same type of special arrangement.
- Consider the student's familiarity with the specific arrangements.
  - Professionals can encourage schools to try out these arrangements before national exams to ensure pupil is **adequately prepared and knows how to fully utilise the access arrangements**

# Access Arrangements for national exams

## Considerations for Report

- Clearly states the disability, as diagnosed by qualified professionals (e.g. pediatricians, psychologists, psychiatrists, occupational therapists and speech and language therapists.)
- Current, i.e. the evaluation of learning needs should be completed **within three years prior to the date of the PSLE**;
- Relevant information on medical, developmental and educational history;

# Access Arrangements for national exams

## Considerations for Report

- Include details of comprehensive testing and techniques used to arrive at the diagnosis, including evaluation dates and test results with subtest scores;
- Describe the functional limitations supported by the test results;
- Describe the specific special arrangements requested, and the rationale for the child's need for special arrangement.

# Examples of Access Arrangements

## Attention & Behavioural Disabilities



Shade OAS answers  
after Listening Compre

Extra time

Exemption from  
exam component

Inform Oral Examiners

Separate room

Prompter/Visual Cues

# Other Considerations

- Deadline:  
At the start of P6 academic year\*  
(assessments should be completed by end of P5)
- Contact SEAB for more information  
<http://www.seab.gov.sg/>

\* SEAB will alert schools of the deadline for the respective years.

# MTL Policies in Schools

- Primary Schools
  - Modular MTL Curriculum  
(Implemented in Phases since 2007)
  - Across all levels
- Secondary Schools
  - MTL 'B' syllabus
  - For students who are exceptionally weak in MTL or have learning disabilities.

Application for Access Arrangements and MTL exemption is made by **SCHOOL to SEAB and CPDD respectively**, supported by information/reports from relevant professionals, teacher reports, observations and curriculum-based assessments.

# Key Guiding Principles for School-based Support

- Positive and collaborative relationship is key
  - Home-School
  - Physician-School (REACH)
- Interventions in school is based on specific educational need of the child, not on disability diagnosis per se
- Involve School's Key Personnel in communication and collaboration efforts  
(see ADHD CPG, Annex 5, page 49 & 50)