Diagnosis and Treatment of ADHD in Primary Care

Looking to create a cadre of primary care prescribers to give patients the medication they need

Personal investment

- Partner at LHGP till 2017 - classic ASD masking meltdown
- Went to my GP asking for an ADHD assessment in 2013
- My appointment at SLAM arrived in 2019
- Diagnosed privately Au-ADHD 2018 but it cost me £2000
- Take 20 mg methylphenidate SR
  really helps to slow my brain down
- Asked my GP to increase the dose to 40mg. Told he would have to refer me – 6 months later I am still waiting for a secondary care appt
- This is a crazy situation

ADHD presentations - Red Flags

• Organizational skill problems (time management difficulties, missed appointments, frequent late and unfinished projects).

• Erratic work/academic performance.

• Anger control problems.

• Family/marital problems.

• Difficulty in maintaining organized household routines, sleeping patterns and other self-regulating activities.

• Difficulty managing finances.

• Addictions such as substance use, compulsive shopping, sexual addiction, overeating, compulsive exercise, video gaming or gambling.

• Frequent accidents either through recklessness or inattention.

• Problems with driving (speeding tickets, serious accidents, license revoked).

• Having a direct relative who has ADHD. Treat the whole family

• Having to reduce course load, or having difficulty completing assignments in school. • Low self-esteem or chronic under-achievement.

ADHD is a major problem

- Adults with ADHD tend to suffer from major socioeconomic disadvantage functional impairment
- and a diminished quality of life and reduced life expecetancy -worse than diabetes
- Lower levels of education, higher levels of unemployment,
- early parenthood
- difficulties in governing financial issues.
- ADHD is much more prevalent in the prison population and long term unemployed

Attention deficit hyperactivity disorder: diagnosis and management

NICE guideline [NG87] Published: 14 March 2018 Last updated: 13 September 2019

NICE - adults:

1.3 Diagnosis

1.3.1 A diagnosis of ADHD should only be made by a specialist psychiatrist, paediatrician or other appropriately qualified healthcare professional with training and expertise in the diagnosis of ADHD, on the basis of:

Training

1.1.7 Trusts should ensure that specialist ADHD teams for children, young people and adults jointly develop age-appropriate training programmes for the diagnosis and management of ADHD for mental health, paediatric, social care, education, forensic and primary care providers and other professionals who have contact with people with ADHD. **[2008]**

1.1.8 Child and adult psychiatrists, paediatricians, and other child and adult mental health professionals (including those working in forensic services) should undertake training so that they are able to diagnose ADHD and provide treatment and management in accordance with this guideline. **[2008]**

Lets get real

- Easy to diagnose in primary care
- The treatment is safe
- Very satisfying both for the GP and the patient
- Prevalence of untreated ADHD patients is such that it can only successfully be managed in primary care

ADHD diagnosis - 1 – definitions

- DSM 5 and ICD-11
- 5 symptoms from a list of 9: 5/9 :hyperactive ADHD: 5/9 inattention ADHD or 5/9 +5/9: Combined ADHD
- Age of onset of these symptoms is by age 12. •
- Impairment in two or more roles due to these symptoms has been present for the last six months or more. •
- A lack of alternate explanation for the symptoms or impairment, including a broad range of alternate medical (including mental health) and circumstantial

ADHD Diagnosis 2 – Rating Scales

- Diva 5 – Psychiatrists favourite but takes 3 hours
- ASRS - Over sensitive ADHD screening tool
- Wellbeing - Weiss
- PHQ 8 - depression
- GAD 7 – Anxiety

ADHD – comorbidities 1

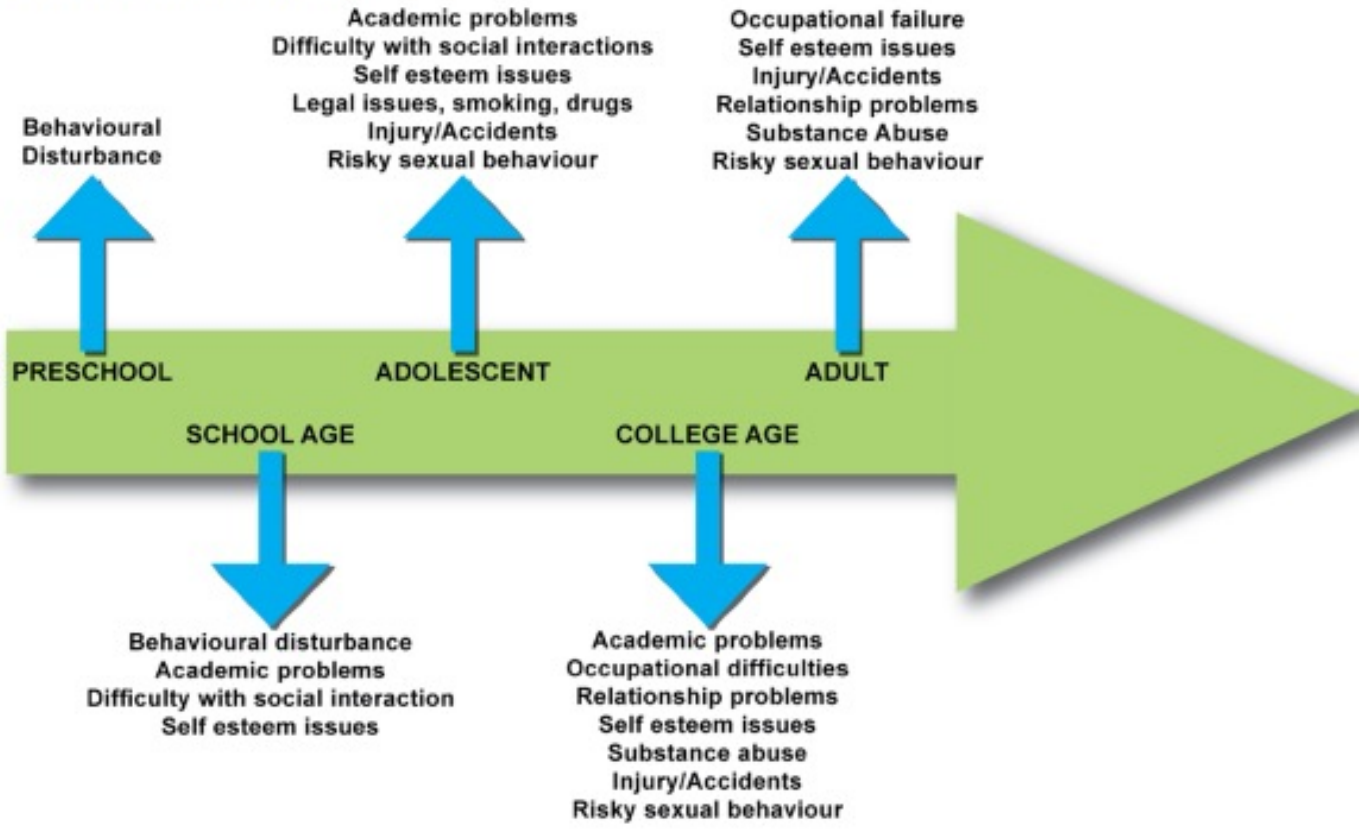
- Usually occurs in conjunction with other illnesses This is normal not the exception
- In ADHD patients
- 30% will have anxiety and 30% depression
- Up to 30 % will have ASD
- 30 % BPD,
- 30 % a learning disability
- 20% Conduct disorder esp in children, substance misuse in adolescents
- 20% bipolar

Co morbidities – 2 ADHD found in psychiatric clinics

- **Prevalence of ADHD in nonpsychotic adult psychiatric care (ADPSYC): A multinational cross-sectional study in Europe**
- Walter Deberdt, et al
- Up to 20 % of patients seen in clinic have undiagnosed ADHD

ADHD across the Lifespan

Figure 3.1 Developmental Impact of ADHD



Other issues

- Accidents and risks
- Driving
- Brain damage – accidents – less responsive to Rx

Treatment - Psychosocial

- Individual
- Environmental – school and workplace

Treatment - medication

- Medication
- Key element of what we can add This is what prescribers are for and medication is the single biggest treatment benefit we as prescribers can offer
- No age specific criteria and no max age
- Pregnancy – unknown but is done with specialist advice
- Children can be treated from 5 or sometimes younger

Medication 2

- First line Stimulants
- Second line non stimulants
- Third line - Rare ones

- Excellent advice about when in the day to start and how long the drug effect is wanted for are in the CADDRA guidelines
- Treat the most severe co morbidity first
- Blood pressure rising is the most significant side effect to monitor for

Medication 3

- The real precautions
- Bipolar
- Cardiac disease
- Psychosis
- Pregnancy and lactation
- **Contraindications**
- Allergy
- MAOI within 14 days

Medication specifics – 4 – Stimulants

- Amazing High response rate
- Safe
- Long acting – safer and better compliance
- Are
- Des Lis Amphetamine – Elvance
- Methylphenidate – Concerta, Medikinet el al Capsules 20 mg and tabs 18mg

Medication specifics

adhd-medications---a-guide-for-healthcare-professionals.pdf (cambscommunityservices.nhs.uk)

ADHD Medications: A Guide for Healthcare Professionals

ADHD Medications available in the UK	Characteristics	Duration of action	IR:MR Ratio	Works up to	Equivalent daily doses of IR MPH	Titration	Frequency of doses per day	Maximum dose per day
STIMULANT MEDICATION – Methylphenidate (MPH) based medications								
Medikinet 5 mg, 10 mg, 20 mg **Ritalin** 10 mg **Generic methylphenidate** 5mg,10 mg, 20 mg	Tablet, can be crushed	Short-acting	100% IR	Up to 4 hrs		Start with 5 mg 1-2 times daily, increase by 5-10 mg/day at weekly intervals.	2 or 3 times a day	Licensed maximum 60 mg/day Up to 2.1 mg/kg/day Or 90 mg/day
Medikinet XL, 5 mg, 10 mg, 20 mg, 30mg, 40 mg, 50 mg, 60 mg	Capsule, contents can be sprinkled on to food	Long-acting Covers school day	IR:MR 50:50	Up to 8 hrs	5 mg = 2.5 mg MPH twice a day 10 mg = 5 mg MPH twice a day 20 mg = 10 mg MPH twice a day 30 mg = 15 mg MPH twice a day 40 mg = 20 mg MPH twice a day 50 mg = 25 mg MPH twice a day 60 mg = 30 mg MPH twice a day	Start with 5 to 10mg/day and increase weekly by 10 mg increments	Once a day in the morning with or after breakfast	Licensed maximum 60 mg/day Up to 2.1 mg/kg/day Or 90 mg/day
Equasym XL 10 mg, 20 mg, 30 mg			IR:MR 30:70			Start with 10mg/day and increase weekly by 10mg increments	Once a day in the morning before breakfast	
Ritalin XL, 10 mg, 20 mg, 30mg, 40 mg, 60 mg							Once a day in the morning with/without food	
Concerta XL, Xaggitin XL, Delmosart, Xenidate XL (18 mg, 27 mg, 36 mg, 54 mg) **Matoride XL,** 18 mg, 36 mg, 54 mg	Tablet, swallowed as a whole	Long-acting Covers school and home day	IR:MR 22:78 Concerta XL	Up to 12 hrs	18 mg = 5 mg MPH 3 times/day 36 mg = 10 mg MPH 3 times/day 54 mg = 15 mg MPH 3 times/day	Start with 18mg/day and increase by 9 to 18mg according to dose availability at weekly intervals	Once a day in the morning with or without food	Licensed maximum 54mg /day Up to 2.1 mg/kg/day Or 108 mg mg/day
STIMULANT MEDICATION – Amfetamine based medications								
Dexamfetamine 5mg **Amfexa** 5mg, 10mg, 20 mg	Tablet can be crushed	Short-acting		Up to 4 hrs	5 mg = 10 mg MPH	2.5mg 2 to 3 times a day and increase by 5mg per day at weekly intervals	2 or 3 times a day	1 mg/kg/day 20 mg/day. Up to 40 mg/day may occasionally be required
Lisdexamfetamine (Elvanse) 20 mg, 30 mg, 40 mg, 50 mg , 60 mg and 70 mg	Capsule Content can be dissolved in water	Long-acting Covers school and home day		Up to 13 hrs		Start with 20 or 30 mg capsule once a day in the morning. Increase by 10 mg at weekly interval up to maximum dose of 70mg/day, if required	Once a day in the morning with or without food	Licensed maximum 70 mg/day
NON-STIMULANT MEDICATIONS								
Guanfacine (Intuniv) 1mg, 2mg, 3mg, 4mg	Tablet, swallowed as a whole	Long-acting Covers school and home day		Up to 24 hrs	**6-12 year olds (25 kg and up):** start with 1 mg and increase by 1mg at weekly intervals **13 to 17 year olds : as above but the max dose varies**		Once a day am or pm, with or without food but avoid high fat meal, grapefruit juice	**6 to 12 olds** : 4 mg **13 to 17 year olds**: 5mg (41.5 -49.4kg) 6 mg (49.5 to 58.4 kg) 7 mg (58.5kg and above)
Atomoxetine (Strattera) 10 mg, 18 mg, 25 mg, 40 mg, 60 mg and 80 mg	Capsule, swallowed as a whole	Long-acting Covers school and home day		Up to 24 hrs	<70 kg – start with 0.5 mg/kg/day for 7 days and increase to 1.2 mg/kg/day, according to response >70 kg – start with 40 mg per day for 7 days and increase to 80 mg /day, according to response		Once a day or 2 divided doses per day	**<70 kg**: 1.8 mg/kg/day or 120 mg/day **>70 kg:** 120 mg/day

When to use medications

Indications

- Medication should be used as part of comprehensive management, including behavioural, psychological and educational interventions
- Severe impairment due to ADHD in a child aged 5 years or above
- Methylphenidate is the first choice
- Consider lisdexamfetamine if methylphenidate is not effective after a 6-week-trial of methylphenidate
- Consider dexamfetamine when lisdexamfetamine is beneficial but longer duration not tolerated
- Consider Guanfacine or Atomoxetine if methylphenidate or Lisdexamphetamine not effective after separate 6-week trials or not tolerated

Contraindications to stimulant drugs

- Treatment with MAO inhibitors and for up to 14 days after discontinuation
- Glaucoma
- Untreated hyperthyroidism
- Pre-existing gastrointestinal narrowing
- Known hypersensitivity or allergy to products

Drug holidays

- Methylphenidate or lisdexamfetamine can be stopped during weekends and school holidays if needed and the child's condition is manageable
- Atomoxetine or Guanfacine should be taken every day to maintain the response

Pre-drug treatment checklist

- Check BP and pulse rate and plot them on the centile chart. Seek specialist paediatric/cardiology advice if BP is consistently above the 95 centile.
- Check weight and height and plot them on growth chart
- Assess for cardiovascular problems
  - congenital heart disease or previous cardiac surgery
  - exercise syncope
  - undue breathlessness
  - palpitations (rapid, regular, start and stop suddenly)
  - chest pain of cardiac origin
  - signs of heart failure
  - hypertension
  - heart murmur on examination
  - sudden death in 1st degree relative under the age of 40 years of cardiac cause

Ask for cardiology opinion if any of the above present.

- Check for any history of substance misuse
- Assess baseline appetite and sleep pattern
- Ask if the child can swallow a tablet or capsule
- Assess if the ADHD symptom severity is present predominantly during school day or throughout the day at school and home
- Check for comorbidity – severe anxiety, tics, depression etc.

Follow up assessment

- After starting medication check BP and pulse rate every 6 months and plot them on the BP centile chart and pulse rate centile chart.
- Check BP and pulse rate before and after each dose change
- Measure height every 6 months in children and teenagers
- Measure weight every 3 months for children aged 10 years and under
- Measure weight at 3 and 6 months after starting treatment in children aged over 10 years and every 6 months thereafter
- Use a rating scale to monitor response to medication at home and school (e.g. ADHD rating scale etc.)
- Check the need for continuing medication every year
- Check for side effects including:
  - Decreased appetite
  - Weight loss
  - Nervousness
  - Difficulty getting to sleep
  - Sleepiness
  - Headache
  - dizziness
  - Stomach pain
  - Dry mouth

Please note: Guanfacine has side effects SSF (Somnolence, Sedation and Fatigue. When stopping guanfacine, it should be reduced by 1 mg every 3 to 7 days and BP monitored to check for rise.

Managing side effects

Appetite decreased

- Wait to see if it gets better
- Decrease dose of medication
- Encourage to eat better, increase calorie intake
- Monitor weight gain

Weight loss

- Take medication with or after food
- Take additional meals or snack in the morning or evening when the effect of medication wears off
- Reduce dose of medication
- Consider lower dose or stop medication over weekends
- Take high calorie healthy foods
- Refer to dietician
- Assess for other causes -? unwell

Difficulty getting to sleep

- Ensure bedtime routine and sleep hygiene in place
- If short-acting tablet – stop the dose after 3pm, alternatively try a short-acting tablet 1-2 hrs prior to bedtime for a short trial period
- If long-acting medication
  - Reduce dose
  - Start medication early in the morning before breakfast
  - Change formulation
  - Consider Atomoxetine
  - Consider a trial of melatonin if delayed sleep phase syndrome present

Tics

- Reduce stimulant dose or stop medication
- Restart medication to check if tics return
- Consider atomoxetine, clonidine or guanfacine

Please note the table is intended for general guidance only. Please ensure to check the NICE guidelines(NG 87), Eletronic Medicines Compendium/up-to-date BNFC for accuracy and additional information.

Authored by Dr Chinnaiah Yemula, Consultant Community Paediatrician, Bedford www.cambscommunityservices.nhs.uk/

Medication – Dose adjustment

Drud	Start	Increase by	Max dose
Concerta XL (13 hrs)	18mg	9mg/ 18mg	54mg
Elvanse/Vyvanse lisdexamfetamine 12 hours	20 or 30 mg	10 (WEEKLY)	70

Medication - 5 - reviews

- Ht and Wt and BP 3 – 6 monthly - mostly done by ARRS prescribing team and could be trained up to do mediation initiation and dose changes
- Annual review

Medication Myths

- Addiction
- Diversion
- Crushing up for a high

- It is a CD –this causes concern with some GP – but we prescribe CDs nearly every day ?

Summary

- ADHD is easy in 90% of cases
- ADHD should be diagnosed and treated in primary care
  - Prevalence
  - Chronic life long condition ideally suited to primary care
- Medication is highly effective in correct patients

- If you want to get on with training and treating patients – look at
- CADDRA.ca
- ADHDbyGP.org

The END - and

- The Beginning

Numbers - South West London

- Population Adults 977 000
- Estimated ADHD Adults (3.5%) = 34 000
- Treated Adults (18 %) = 6 000

- **Untreated Adults (82%) = 27 000**
- **Number of Primary Care Networks = 39**
- **Number of GPs we would like to train = 80**

Plan

- See 50 % of undiagnosed patients
- Over a 5 year period
- Each PCN would need to provide a GP for a day and a half a week
- to eliminate the waiting list

- Money - its there –
- The RTC providers are getting thousands of referrals from across the UK and getting paid. About £1000 for diagnosis and more for med reviews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CADDRA is an independent, not-for-profit, resource organization for medical, healthcare and research professionals with an interest in the field of ADHD. We do not have any health professionals on staff to diagnose or to answer questions. If you are seeking these services, please consult your healthcare professional.
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[redacted]	[redacted]	40	15-05-2024

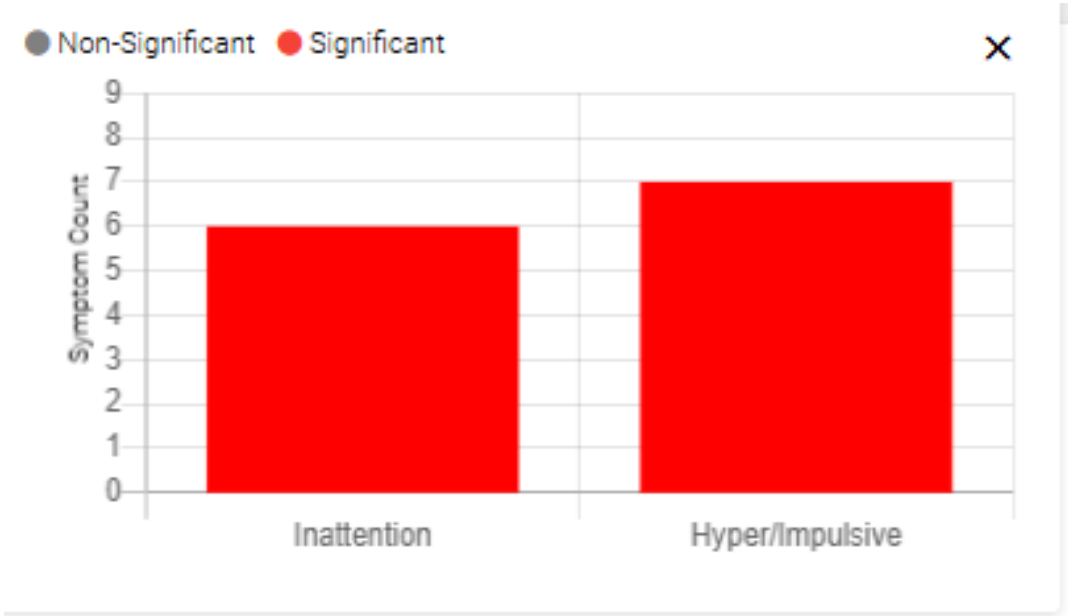
Showing 1 to 5 of 5 entries

FIRST PREVIOUS 1 NEXT LAST

Request patient completion	Priority	Status	Request Status	Actions	Select
Adult ADHD Self-Report Scale (ASRS-v1.1) Symptom Checklist	Recommended				
Weiss Functional Impairment Rating Scale – Self Report (WFIRS-S)	C				
Patient Health Questionnaire (PHQ-8)	Optional				
Generalized Anxiety Disorder Screener (GAD-7)	Optional				
Wender Utah Rating Scale (WURS)	Optional				
Weiss Symptom Record II Form	Optional				

Assesses ADHD-related functional impairment (self assesssment).

ASRS



Adult ADHD Self-Report Scale (ASRS-v1.1) Symptom Checklist

DSM Symptom Counts	**SUGGESTIVE OF ADHD**
Part A Screener Score	**Above Cut-off**

ASRS detail

ASRS Results: *SUGGESTIVE OF ADHD*

Domain	Positive Symptom Count	Total Score	Average Score
Hyperactivity/Impulsivity	7 / 9	26	2.9
Inattention	6 / 9	25	2.8

ASRS detail

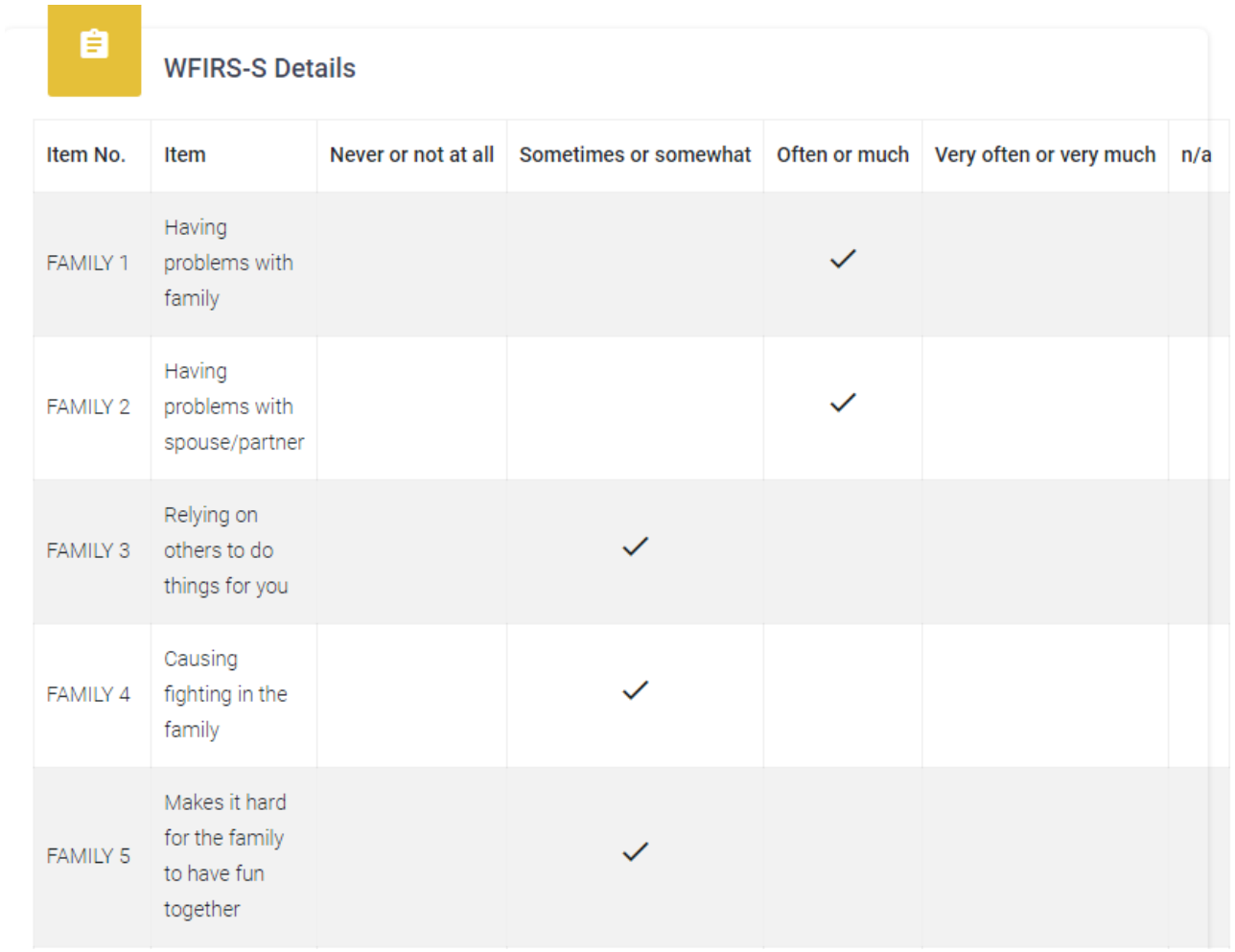
ASRS Details

Q. No.	Question	Never	Rarely	Sometimes	Often	Very Often
A 1	How often do you have trouble wrapping up the final details of a project, once the challenging parts have been done?					✓
A 2	How often do you have difficulty getting things in order when you have to do a task that requires organization?			✓		
A 3	How often do you have problems remembering appointments or obligations?				✓	
A 4	When you have a task that requires a lot of thought, how often do you avoid or delay getting started?			✓		
A 5	How often do you fidget or squirm with your hands or feet when you have to sit down for a long time?			✓		

Weiss Impairment Scale

Weiss Functional Impairment Rating Scale – Self Report (WFIRS-S)

Weiss Impairment Scale



WFIRS-S Details

Item No.	Item	Never or not at all	Sometimes or somewhat	Often or much	Very often or very much	n/a
FAMILY 1	Having problems with family			✓		
FAMILY 2	Having problems with spouse/partner			✓		
FAMILY 3	Relying on others to do things for you		✓			
FAMILY 4	Causing fighting in the family		✓			
FAMILY 5	Makes it hard for the family to have fun together		✓			

We need supervision

- For our first cases
- For ongoing mentoring and support
- As NICE guidance says – Should come from our local trust
- Maybe it will – discussions are just starting

GPs as independent contractors

- We can be employees of the mental health trust
- Or we can be independent experts based on our training
- Both general – experience of mental health diagnoses
- And specific after specific ADHD training -

If you are interested: visit ADHD by GP.org

Inaugural meeting London GP group

- Friday 7pm. 7th June 2024

- Join Zoom Meeting
- https://us02web.zoom.us/j/81720128897?pwd=eFNzbzBKSm9hRHRwb3BPWU11bG1LZz09
- Meeting ID: 817 2012 8897 Passcode: 999469

- jeremygray@nhs.net