JUNIOR

MARSIPAN

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Junior MARSIPAN

• DN approached to join MARSIPAN discussion
• Concluded that although the issues were similar, young people sufficiently different to merit separate guidance

• Key differences:
  – Definition of high risk in YP controversial
  – Admission of YP to paediatric wards is common
  – Most YP are not treated in Specialist Eating Disorders Units (SEDU’s) in the UK

• Teamed up with paediatric and dietetic colleagues – started work on Jnr MARSIPAN Jan 2010
What are the issues for children and adolescents?

• Dear Dasha

• **CALLER:** Jane Webb from north of England

• **MESSAGE:** 9 yr daughter with an eating Disorder. Seen doc and CAMHS team involved only for verbal therapy. Going down-hill fast.

• **WEIGHT/BMI:** 70% body weight
Dear Dr,

Sorry to trouble you but we have ended up back at hospital A&E today with Julie (11 yrs) as she is struggling with continued fainting episodes; weight loss and weakness.

We have been referred back to [paediatrician] and have an appointment on the 14th October and we are to see the CAMHS clinic on the 15th for assessment. The team at CAMHS feel that she is at risk due to excessive weight loss but this is being contradicted by the team at [acute hospital] who say that medically she is not at risk – we are no further forward.

A parent
• Enquiry re AB, 13 year old girl from South East. She is in a local paediatric ward, diagnosed with AN, currently not eating very much at all. She lives at home with her parents.

• CAMHS team hoping for an inpatient bed quickly.

• First presentation ED. Parents struggling to accept as ED as not culturally congruent (Asian family).
Some UK problems

• Late presentation/detection
  – By the time they present to specialist ED services, up to 50% are sick enough to need hospitalisation
  – ~ 8 months from onset to presentation
HES data for 0-14 year olds
1998-2013

- F50.9 Eating disorder, unspecified
- F50.8 Other eating disorders
- F50.5 Vomiting associated with other psychological disturbances
- F50.3 Atypical bulimia nervosa
- F50.2 Bulimia nervosa
- F50.1 Atypical anorexia nervosa
- F50.0 Anorexia nervosa
Everybody's problem

• Paediatrics and mental health; primary and secondary care; parents and professionals working together
Risks ↑ e.g. waiting for an inpatient bed

Outpatient CAMHS

Inpatient CAMHS

Outpatient Paediatrics

Inpatient Paediatrics

Liaison and Communication
Different perceptions of risk
Who’s in charge?

- Varies with age and illness severity
Refeeding

• How much?
• How?
• Who?
• Where?
• What?
Low levels of knowledge

Hudson LD, et al. 2013

• Telephone survey of on-call junior paediatric doctors providing acute inpatient general paediatric care in England and Wales.
• Response rate 100%.
• Only 50% identified BMI as appropriate measure for underweight in children.
• Most did not identify cardiovascular complications of severe underweight.
• Poor knowledge of refeeding syndrome; 20% unable to define at all; 21% identified some clinical features; 57% aware of potential phosphate abnormalities.
The aims of Junior MARSIPAN

• Take the guess work out of risk assessment
• Clarify the roles of paediatrics and CAMHS in relation to Jnr MARSIPAN cases
• Emphasise the need for collaborative care and pathways for effective early intervention
• Shift thinking towards the mainstay of treatment being CAMHS outpatient
• Educate
• Setting some standards
| GUIDANCE BOX 1: RISK ASSESSMENT FRAMEWORK FOR YOUNG PEOPLE WITH EATING DISORDERS |
|---------------------------------|---------------------------------|---------------------------------|---------------------------------|
| **Body mass** | **RED (High risk)** | **AMBER (Alert to high concern)** | **GREEN (Moderate risk)** | **BLUE (Low risk)** |
| | Percentage Median BMI (see section A1 for calculation of %BMI) | Percentage Median BMI 70-80% [Approximates to between 2\textsuperscript{nd} and 0.4\textsuperscript{th} BMI centile] | Percentage Median BMI 80-85% [Approximates to between 9\textsuperscript{th} and 2\textsuperscript{nd} BMI centile] | Percentage Median BMI >85% [Approximates to above 9\textsuperscript{th} BMI centile] |
| Recent loss of weight of 1kg or more/week for two consecutive weeks | Recent loss of weight of 500g-999g/week for two consecutive weeks | Recent weight loss of up to 500g/week for two consecutive weeks | No weight loss over past two weeks |
And similar gradings for..

- Cardiovascular/biochemistry
- Temp/hydration
- Engagement with the plan
- Self harm/suicidal risk
- Exercise
- Other comorbidities
Location of care

• When to admit
• Where to admit
• Aims of admission
• When to discharge
• Preparing for discharge
What SEDB’s should offer

- NG insertion and feeding
- Daily biochemistry
- Frequent nursing observations
- Prevention of symptomatic behaviours (e.g. water drinking, absconding, exercising etc).
- Daily (reported) ECGs
- Sedation of a resisting patient
- Treatment of pressure sores
- Immediate cardiac resuscitation
- Use of appropriate legal frameworks including the MHA
- Safe restraint techniques, and paediatric psychopharmacology
- Access to advice from paediatricians and paediatric dietitians
What *Paediatric* services should offer (in addition)

- IV infusions
- Artificial ventilation
- Cardiac monitoring
- CVP lines
- TPN
- Paediatric “Crash” team
- Treatment of serious medical complications.
Key tasks of the in-patient paediatric/medical team are to

a) safely re-feed the patient, avoiding re-feeding syndrome due to too rapid re-feeding, and underfeeding syndrome due to too cautious re-feeding;

b) manage, with the help of the CAMHS staff, the behavioural manifestations of AN secondary to the fear of weight gain, for example compulsive exercise;

c) occasionally treat young people under compulsion (using parental consent, the Children Act or the Mental Health Act, depending on the setting, age and capacity);

d) arrange transfer of the young person to appropriate CAMHS care as soon as it is safe to do so.
Management of Refeeding

• Huge controversy!
• “A lack of evidence from interventional studies has hindered practice and led to worldwide disparities in management recommendations.”
• MARSIPAN and Junior MARSIPAN reached a compromise position
• Both sides said an RCT could not be done
Multicentre RCT of refeeding in young people with AN

O’Connor G, Nicholls D, Hudson L, Singhal A

- Aged 10-16 years; BMI <78% of median for age and sex, recruited from 6 UK hospitals
- Method: Refeeding at 1200kcal/ day (n=18, Intervention) or at 500kcal/ day (n=18, Control). Energy intake ↑ increased in both groups by 200kcal/ day up to 80% of average requirements.
Weight and intake change

Between group day 4 (p=0.03)
day 10 (p=0.08)
Results Cardiovascular parameters

• QTc interval and heart rate improved equally in both groups and therefore no significant difference in QTc interval or heart rate between groups after refeeding (p=0.4)

• At baseline 5 participants had QTc interval prolongation (2 low refeeding group and 3 high group). Resolved by day 4 QTc in 4 participants. 1 participant (low refeeding group) deteriorated and lengthened.
Hypophosphatemia (<0.9 mmol/l)

- Baseline no participants with hypophosphatemia
- Within 48hrs of refeeding 7 participants developed hypophosphatemia (2 low group and 5 high group)
- 2 required oral phosphate supplementation
- Chi sq analysis reported comparison of risk between group (p=0.4)
Conclusion of RCT

• Re-feeding adolescents with AN with a higher energy intake was associated with greater weight gain, but without an increase in complications associated with re-feeding.

• Identify high risk patient:
  – < 75%mBMI
  – WBC <3.8 X 109/L
  – Deranged baseline electrolytes
Qualitative study of professional attitudes to young people with AN re Jnr MARSIPAN
Sylvia Baker ST5 CAMHS (South Wales Rotation)

• “My paediatric colleagues use it regularly. We use the guideline as a guide to request further medical reviews and it helps with that.”

• “Useful in emergency and screening who needs medical review quickly and it prevents sick patients being transferred back too early”

• “People would like us to have hard and fast rules but it doesn’t work like that.”

• “I have to liaise with the paediatric doctors so it’s a useful tool to discuss the markers of severity.”
“It is good that it extended to junior MARSIPAN...bit long though!”

“I’m trying to get the team to refer to it more. I need to develop something so we can incorporate it more into our practice...Thanks for reminding me!”

“Never heard of it”
Within NHS Grampian Junior MARSIPAN has greatly facilitated joint working between mental and physical health services, and provides a shared template to promote equitable, consistent care for different patients, services, and clinicians.

Dr Rachael Smith
Dr Cleo Hart;
Dr Kandarp Joshi;
Dr Jane Hosie
NHS GRAMPIAN
Dissemination

- Still gaps
- App developed and under trial
- Summary version (18 pages) soon to be published
- Management of acute malnutrition in paediatric curriculum
- A book...
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Endorsements

• Eating Disorders Faculty of the Royal College of Psychiatrists
• B-EAT (Eating Disorders charity)
• Young People’s Special Interest Group (YPSIG) of the RCPCH
• Nutrition Group of the RCPCH
• BSPGHAN
• British Paediatric Mental Health Group