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NSW HEALTH

Our vision: Healthier communities, Excellence in healthcare
Our values: Teamwork, Honesty, Respect, Ethics, Excellence, Caring, Commitment, Courage

"Dancing with Death"

A clinical protocol for the assessment of severe Eating Disorders

John Hunter Hospital
Centre for Psychotherapy Liaison Group

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Clinical Pathways: Sharing Lessons Learnt - 28th June 2007

Did you know that eating disorders are on the rise and can be seen in children as young as 7 years old?

- Eating disorders encompass a spectrum of problems
  - ***Anorexia Nervosa***
  - ***Bulimia Nervosa***
  - ***Binge Eating Disorders***

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Why are eating disorders important?

- Lifetime risk around 5% for AN or BN *(Schizophrenia 1%)*
- 2-3% of adolescent & adult females suffer from AN or BN
- Mild to severe symptoms
- Without treatment - 20% with serious eating disorders die.[1]
- AN has the highest mortality rate for any mental illness.[1]
- AN is the 3rd most chronic disease in young women 15-25, after obesity and asthma.
- It is 5 times more common than IDDM in this age group

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Diagnostic Criteria

Anorexia Nervosa

- BMI < 17.5 kg/m2 *(Adults)*
- BMI < 25 centile *(Paediatrics)* ***and***
- *Weight loss self-induced by:*
  - Restriction of intake
  - Self induced vomiting or purging
  - Excessive exercise
  - Use of appetite suppressants / diuretics / laxatives
- Morbid dread of fatness
- Self set low weight threshold
- Amenorrhoea in women or loss of sexual interest or potency in men
- Failure to menarche or delayed menarche/growth failure in children & adolescents

Bulimia Nervosa

- Bingeing, with preoccupation with food and craving of it.
- *Attempts to counteract excess calorie intake by:*
  - Self induced vomiting or purging
  - Alternating periods of starvation and bingeing.
  - Use of appetite suppressants / diuretics / laxatives.
- Morbid dread of fatness
- Self-set low weight threshold
- Binge eating - consuming large amount of food whilst experiencing a sense of lack of control over eating
- Possible history of anorexia nervosa

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What are the contributing factors?

- **Physiologic regulation of appetite:** major neurotransmitters serotonin and dopamine.
- **Genetics:** 4-5 times greater chance of developing if there is a family history of an eating disorder.
- **Sociocultural factors:** cultural preferences, media images, peer pressure, dieting.
- **Personal characteristics:** low self-esteem and feelings of helplessness, lack of healthy body image.
- **Psychiatric illness:** anxiety, depression, addictive behaviour.

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What we do know…

- This psychopathology is often only apparent following presentation for a medical complaint.
- Failure to identify and treat, predicts poor prognosis for both adults and children
- Estimated around 900 cases of Anorexia Nervosa in the HNE region at any one time, with 50 new cases each year.
- Evidence of increasing prevalence

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Hunter Region Data

Adults 2000-2005

- 88 adult admissions per year
- ALOS is 13 days
- Hospital cost estimated at $800,000 per year
  - *Inpatient costs were estimated at $700 per day per patient*
- 35% of patients were readmitted to a hospital facility within 28 days
- 30% of admissions were admitted for 1 day
- Adults account for 64% of separations for patients with eating disorders *(compared to other age groups)*

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Hunter Region Data **Paediatrics 2005-06**

- ***NEXUS*** - *specialising in eating disorders*
  – 19 admissions
  – Average LOS: 42 days
  – 2 lengthy patient admissions 92 & 180 days.
- ***J2 Adolescent ward***
  – 24 admissions
  – Average LOS: 32 days
  – 7 lengthy admissions > 50 days, <84 days

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Defining the problem?

Centre for Psychotherapy & JHH ED

- Difficult Mental Health problem
- Non compliance particularly at early stages of treatment.
- Secretive disorder unless severe weight loss evident
- ‘Dancing with death’ in severe cases.
- Limited statistically validated treatments, although they do have treatment successes at the CPT *(outpatients clinic).*
- Prolonged early treatment phase, where the patient is often in medical danger.

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Defining the problem?

- No-one in ED or medical services wanted to really 'own' the patient
- Random and adhoc criteria for admission of severe cases
- Recurrent presentations / bounce-backs
- Difficulty 'selling' the patient to in-patient services
- Referral process on discharge fragmented

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Case Study

29 year old female (28.2kg)

1998-2006

- Chronic progressive Anorexia Nervosa
- 25 presentations to JHH ED
- 10 total admissions

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Signs and Symptoms

- Hypokalemia
- Hypothermia
- Syncope
- Chest tightness
- Shortness of breath
- Bradycardia
- Dehydration
- Threatening self harm
- Confusion
- Seizures
- Anorexia
- Lethargy
- Overdose

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Co-morbidities & compounding issues

- Chronic progressive Anorexia Nervosa
- Borderline personality disorder
- Substance abuse
- Depression
- Complicated medical Hx
- Despite multiple admissions - failure to gain weight
- Verbally aggressive towards staff
- Self discharge
- Guardianship Board

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What did we miss in ED?

Documentation

- Skin Integrity
- Muscle strength
- Postural BP’s

Pathology

- Phosphate
- TSH
- CK
- Magnesium

Brief History

- Exercise
- Use of laxatives
- Diuretics
- Induced vomiting
- Amenorrhea

Referrals

- 17 out of 25 presentations to ED resulted in no admissions & no referral to gastroenterology
- Psychiatric referrals - in only half of total presentations.

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Progress

- Introduced a specific management care plan
- Specialled by Mental Health nurses
- Continuity of care - regular medical/nursing staff
- Guardianship Board involvement
- Re-engaged with her mother and d/c to mother's care in another state
- Weight gain from 28.2kg to 47.7kg
- Only 1 short hospital admission in 8 months

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Where to from here?

- **Eating Disorder Liaison group**
  - Centre for Psychotherapy - Psychologist, Dietitian
  - Liaison Psychiatry - Psychiatrist
  - Gastroenterology - Physician, Liaison Nurse
- How to 'fix' the problem - pathway / protocol
- How to engage ED staff - Emergency CNC
- Develop an eating disorder staff survey
  - Knowledge deficits
  - Attitudes
  - Potential clientele

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Questions to ponder?

1. Random and adhoc criteria for admission and does the data at JHH ED confirm this impression?

2. What are the self-rated competencies of nursing and medical staff in the assessment of Eating Disorders?

3. Can the medical assessment of eating disorders be made easier or simplified for ED staff?

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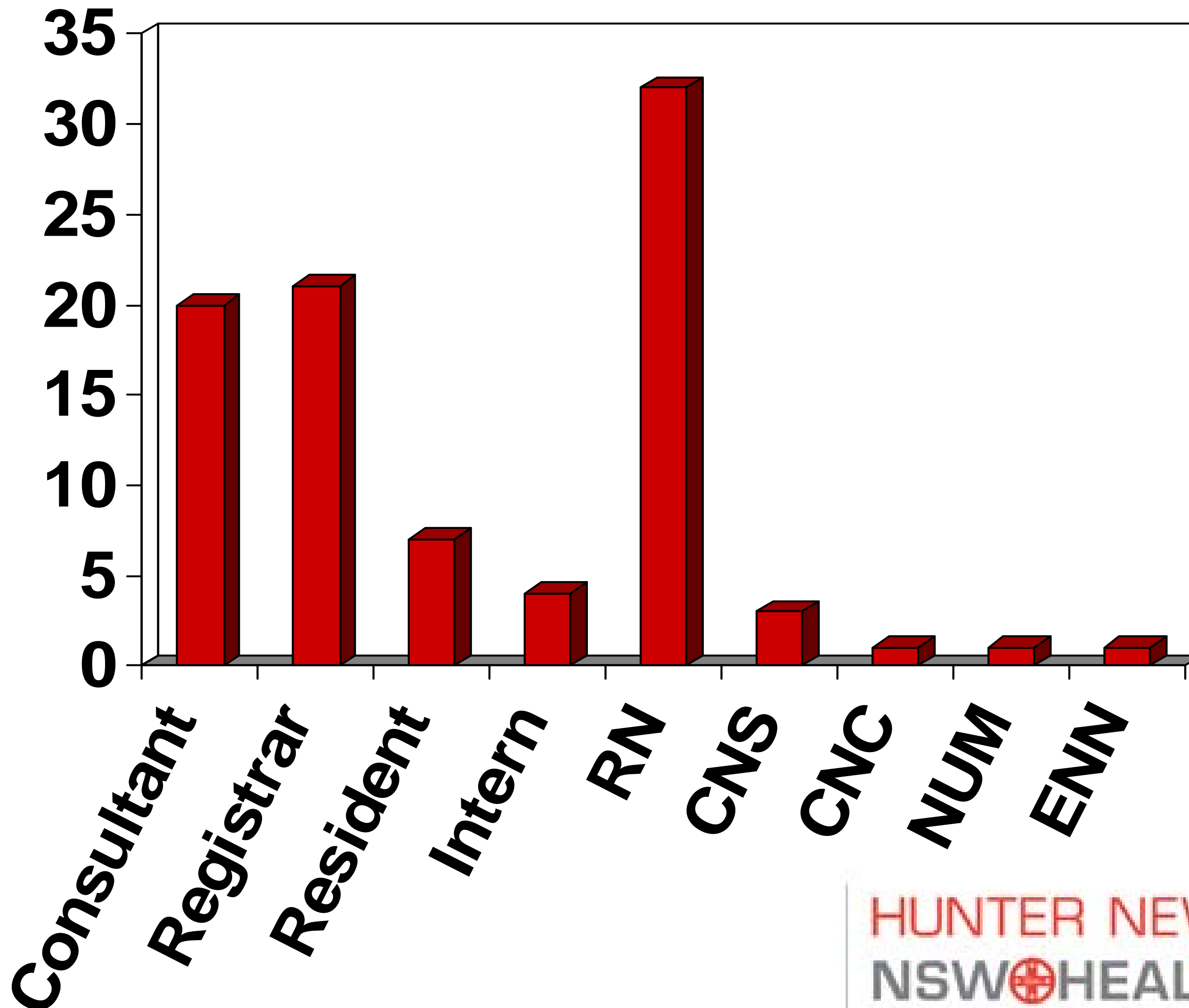
Eating Disorder Survey (n=90)



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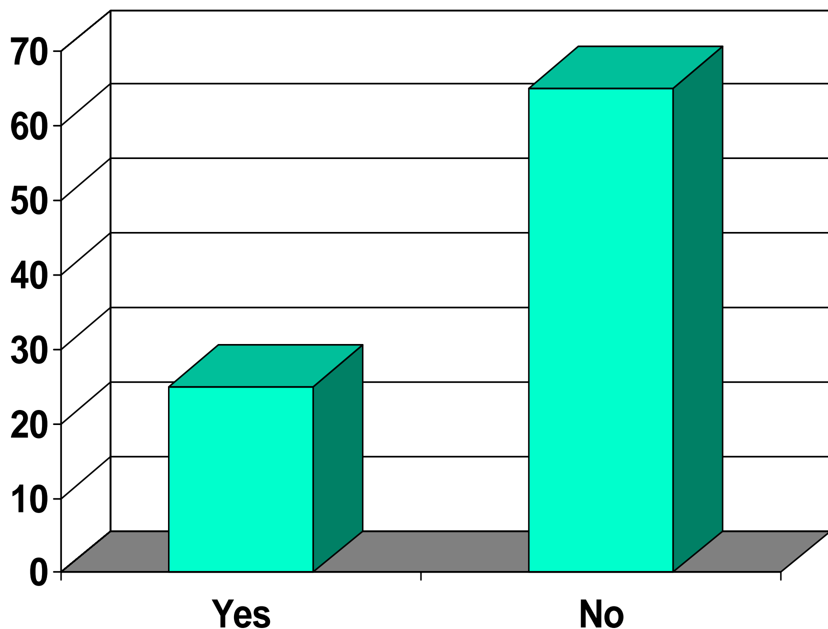
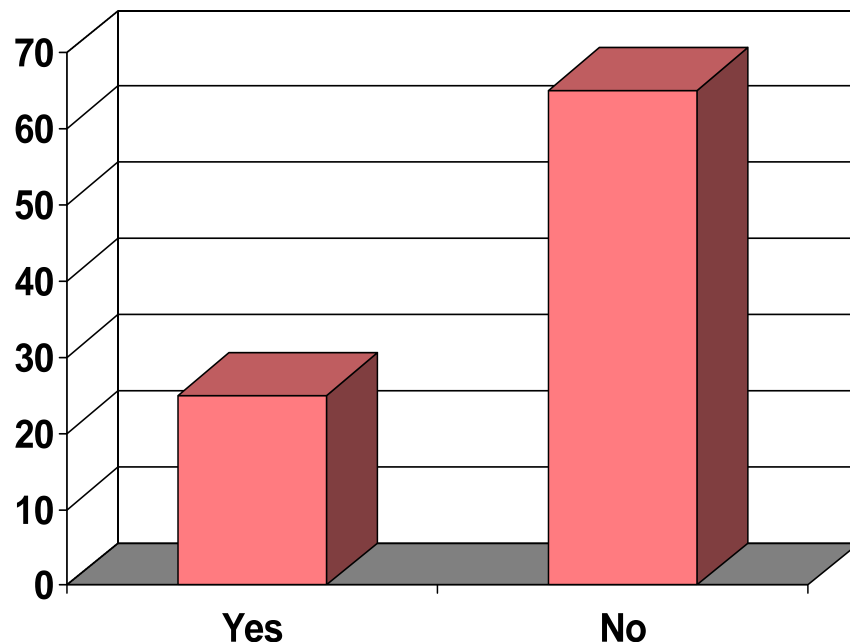
Personal interest in Eating Disorders (n=90)



Reading journals on Eating Disorders (n=90)



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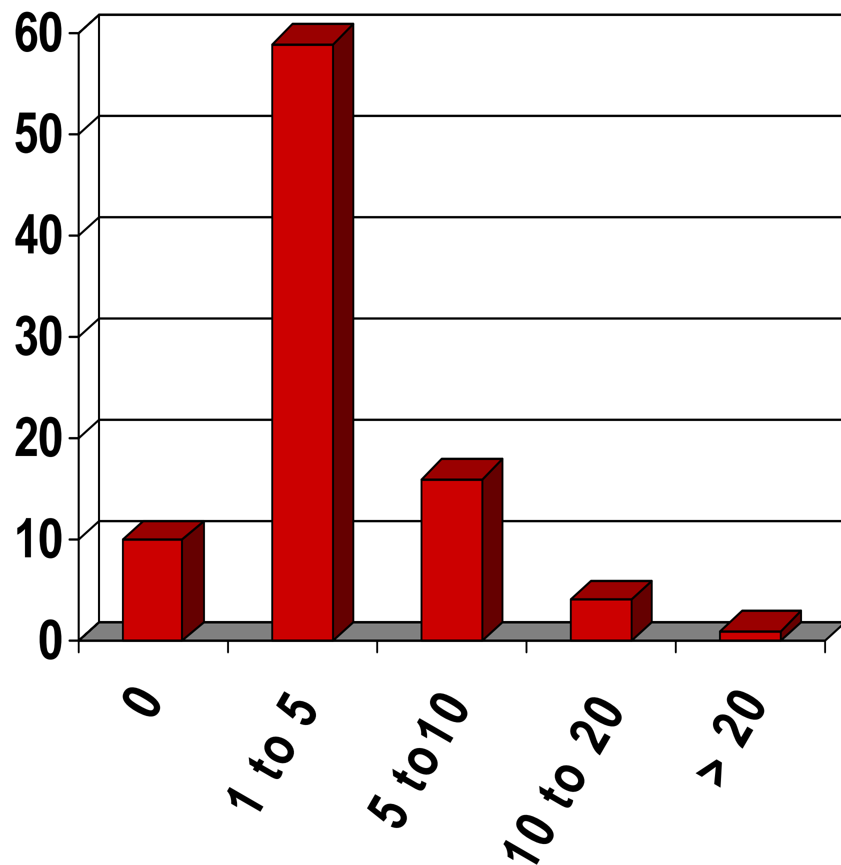
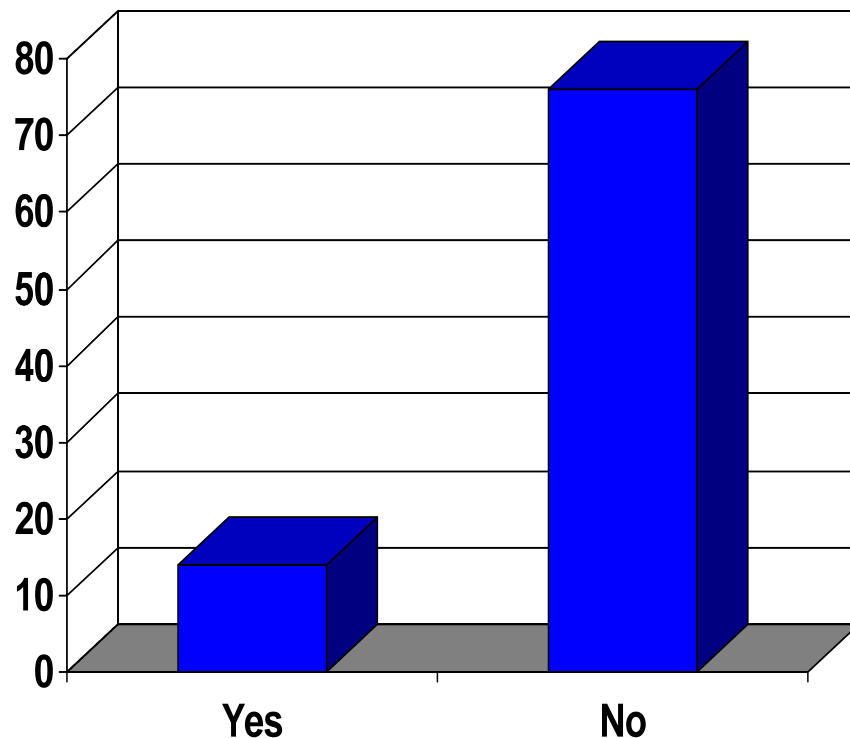
Assessments in past year (n=90)



Education / Conference Sessions (n=90)



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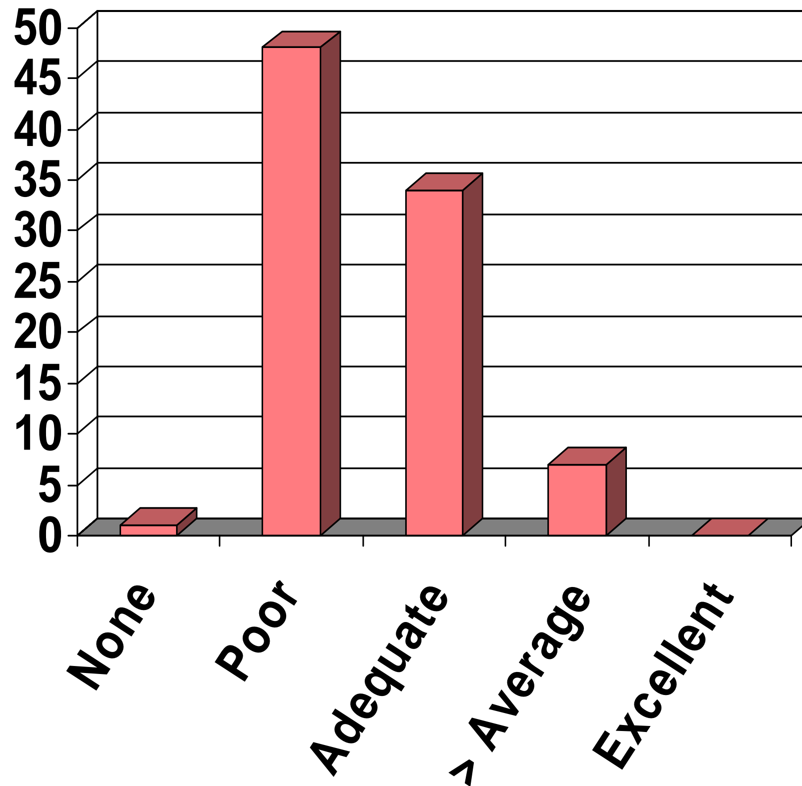
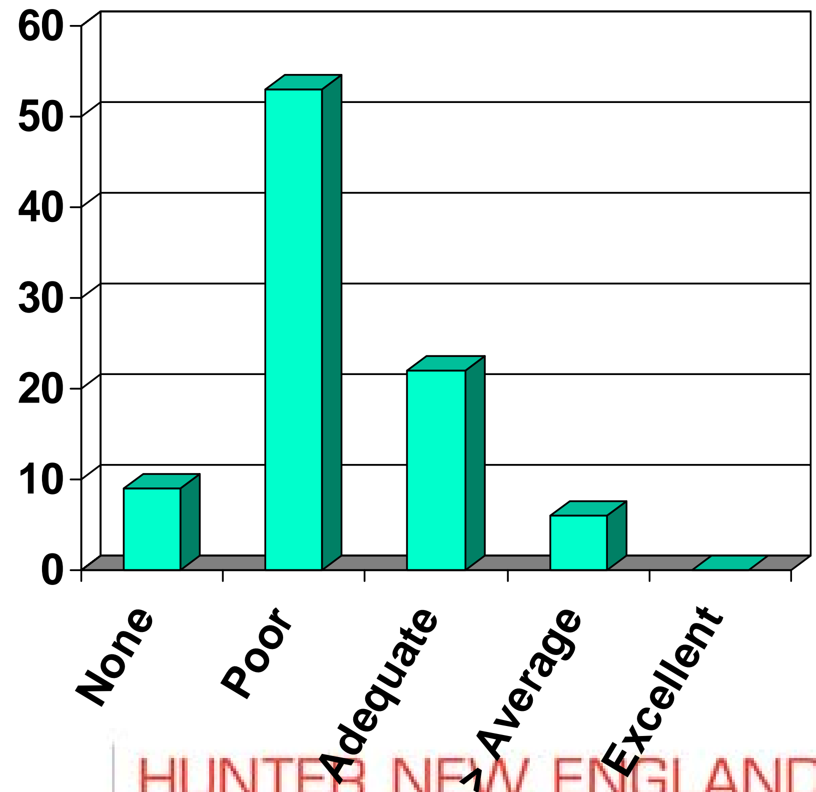
Self-rated Level of Knowledge (n=90)



Self-rated Sufficiency of Training (n=90)



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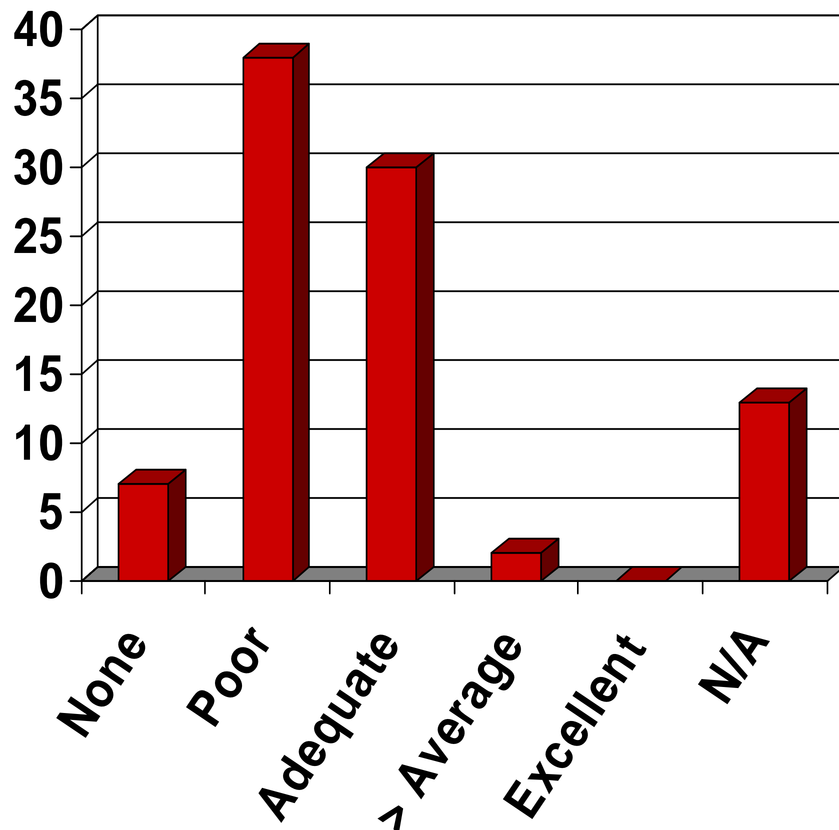
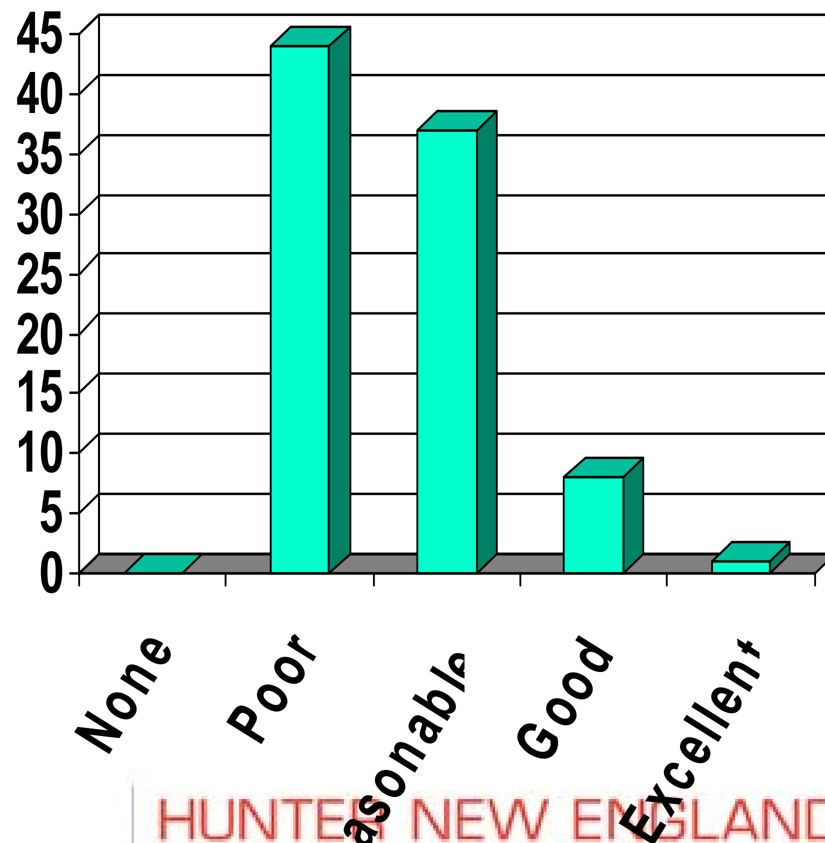
Self-rated Level of Support (n=90)



Confidence in Assessing (n=90)



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Development of pathway / protocol

- Adult *versus* Child/Adolescent Pathway *(combined)*
- Potential clientele is essentially unknown *(screening tool)*
- **Eating Disorder Pathway Team**
  - Gastroenterology
  - Paediatricians
  - Liaison Psychiatry
  - NEXUS (Child/Adolescent)
  - Emergency Department – CNC & Staff Specialist
  - General Practitioners
  - Dietitians
  - Child Psychiatry Service *(5-12 years)*
  - Community Adolescent Mental Health Team *(12-18 years)*
  - Centre for Psychotherapy *(>18 years)*

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Engaging our Emergency Staff…

- **Focus group session** *(Mortality & Morbidity Meeting)*
  - Eating disorder education
  - Prevalence & relevance to ED *(hard sell)*
  - Case Study
  - Feedback survey results
  - Proposed pathway – feedback from ED Staff
  - Identified any resistance to implementation
  - Encouraged broad participation from all staff
- Redesigned pathway with ED physician input

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Eating Disorder Pathway

HUNTER NEW ENGLAND AREA HEALTH SERVICE

JOHN HUNTER HOSPITAL
EMERGENCY DEPARTMENT

Eating Disorders

PLEASE USE GUMMED LABEL IF AVAILABLE		UNIT NUMBER
SURNAME		
OTHER NAMES		
ADDRESS		
DATE OF BIRTH	M.O.	

TRIAGE	Date:__________	Time: ______
Presenting Problem:		
Triage Intervention:		
Priority: ________	Area: ________	Interpreter Required: Yes / No
Triager Name (print): ______________		Triager Name (signature): ______________
Correspondence: *(circle)* Letter Telephone Copy notes Lab ECG Other: ________		
VITALS: BP____ / ____ Pulse ______ RR ________ Temp:________ SpO² ________%		
Investigations: *(circle)* FBC UEC GLU LFT Amy CE Other: __________		
Print name, signature, time and record designation for all entries		
Attending Medical Officer: ______________ Time attended: __________		

Presenting Problem and History:

Include a brief history of eating disorder, purging behaviours (frequency, amount and type)

Past Medical History: *Include history of past treatment for eating disorder (inpatient/outpatient)*

Emergency XXX EATING DISORDERS XXX Emergency

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EMERGENCY DEPARTMENT

Eating Disorders

PLEASE USE GUMMED LABEL IF AVAILABLE		UNIT NUMBER
SURNAME		
OTHER NAMES		
ADDRESS		
DATE OF BIRTH	M.O.	

Parameters:

Temp: ________°C	**RR:** __________/min	**BP** (L):_____/_____
HR: ________ bpm	**SpO²:** __________ %	**BP** (S):_____/_____
12 Lead ECG: ☐ Normal ☐ Abnormal:		

Calculate the patient's BMI (weight (kg)/height m²): *Paediatric & Adult BMI calculator is available at the following website address:* http://www.cdc.gov/nccdphp/dnpa/bmi/index.htm

Height: __________cm **Weight:** ____________kg **BMI:** ______________

DIAGNOSTIC CRITERIA

Consider whether the adult or child has at least one (1) or more of the following diagnostic criteria for referral

Anorexia Nervosa	Bulimia Nervosa
☐ BMI < 17.5 kg/m2 *(Adults)* ☐ BMI <25 centile *(Paediatrics)* *and*	☐ Bingeing, with preoccupation with food and craving of it.
Weight Loss self-induced by: ☐ Restriction of intake ☐ Self induced vomiting or purging ☐ Excessive exercise ☐ Misuse of appetite suppressants / diuretics/ laxatives	*Attempts to counteract excess calorie intake by:* ☐ Self induced vomiting or purging ☐ Alternating periods of starvation and bingeing. ☐ Use of appetite suppressants / diuretics / laxatives
☐ Morbid dread of fatness	☐ Morbid dread of fatness
☐ Self set low weight threshold	☐ Self-set low weight threshold
☐ Amenorrhoea in women or loss of sexual interest or potency in men ☐ Failure to menarche in adolescents or delayed menarche/growth failure in children & adolescents	☐ Binge eating - consuming large amount of food whilst experiencing a sense of lack of control over eating ☐ Possible history of anorexia nervosa

Chest and Respiratory:

Abdominal and GIT:

Other Findings:

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Eating Disorders

PLEASE USE GUMMED LABEL IF AVAILABLE		UNIT NUMBER
SURNAME		
OTHER NAMES		
ADDRESS		
DATE OF BIRTH	M.O.	

Immediate Medical Management:	Investigations:
	☐ FBC, UEC, LFT's
	☐ Glucose
	☐ Magnesium
	☐ Phosphate
	☐ TFT

Indications for Medical Admission:	*Consider the diagnostic criteria plus any one (1) of the following risk factors (please tick boxes)*
☐ BP < 90/60mmHg *(Adults)* ☐ BP < 80/50mmHg *(Children)*	☐ Rapid weight loss *(<1kg per week over several weeks)*
☐ Postural drop ≥ 20mmHg	☐ Moderate to severe dehydration
☐ Hypothermia: T< 36°C	☐ Ceased fluid Intake
☐ Tachycardia *(age specific parameters)*	☐ Low serum Potassium (<3.0mmol/l)
☐ Bradycardia HR<50 *Children* or HR < 40 *Adults*	☐ Low serum Phosphate
☐ BMI < 14kg/m² *(of any age)* or	☐ Other significant electrolyte disturbance
☐ BMI < 15kg/m² with co-existing medical conditions *(pregnancy or diabetes)*	☐ ECG - Prolonged QT Interval

If a patient is at medical risk but does not consent to treatment they must be treated under the appropriate legal criteria. ▪ Duty of Care ▪ Mental Health Act ▪ Guardianship Act

Contact the following persons for Medical Admission:	
Paediatric (<18 years)	Adult (>18 years)
◦ Paediatric Registrar *Page: 5560*	◦ Gastro Registrar *(Mon-Fri 8-4.30pm on-call)* ◦ Medical Registrar *(after hours on-call)*

Hospital admission may still be indicated even if medically stable, assess psychiatric history

Psychiatric History: *Assess for capacity / competency and other psychiatric co-morbidities:*

Co-morbidities:

If there is any evidence or history of these risk factors, Psychiatric Assessment is required

☐ Depression	☐ Obsessive Compulsive Disorder	☐ Suicidal Ideation *(moderate to high risk)*
☐ Self-harm / harm to others	☐ Psychosis	☐ Other psychiatric condition

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Eating Disorders

PLEASE USE GUMMED LABEL IF AVAILABLE		UNIT NUMBER
SURNAME		
OTHER NAMES		
ADDRESS		
DATE OF BIRTH	M.O.	

Indications for Psychiatric Assessment:	*Any one (1) of the following criteria - please tick boxes*
☐ Moderate to high suicide risk ☐ Active self-harm	☐ Other psychiatric condition *(please state)* ______

Contact the following persons for Psychiatric Assessment:	
Paediatric (<18 years)	Adult (>18 years)
◦ Nexus Intake *Page: 5334 Ph:55800* *Mon-Fri 8.30am-10pm & Sat-Sun 2.30-10pm*	◦ Liaison Psychiatry *Ph:13660* *Mon-Fri 8-4.30pm*

Note: After Hours - Psychiatry cover for paediatrics & adults is through On-call Registrar via switch

Investigations/ Results/ Progress Notes:

Discharge Instructions: *If safe for discharge from ED please ensure follow up with patients own LMO and the following services. During B/H Mon-Fri 8.30-5pm contact the following numbers for referral, and A/H fax pathway*

☐ <12 years - Child Psychiatry Service *Intake Officer*	Ph: 49246200	Fax: 49246199
☐ 12-18 years - Community Mental Health Adolescent Team *Intake Officer*	Ph: 49692477	Fax: 49610731
☐ > 18 years - Centre for Psychotherapy *Dr Michael Currie, Clinical Psychologist or Claire Toohey, Dietitian*	Ph: 49246820	Fax: 49246801

Treating Medical Officer (print name):	Signature:
Reviewed by Senior ED Medical Officer (print name):	Time of referral:
Medical Specialist/Registrar Notified (print name):	Time of notification:
Psychiatry Liaison/Registrar Notified (print name):	Time of notification:

Disposition: ☐ Admit Ward ☐ Transfer to other hospital ☐ Discharged ☐ Died

On Discharge Fax Eating Disorder Pathway to Gastroenterology Department: 49213794

Challenges with implementation?

- Attitude towards identifying/assessing patients with eating disorders in ED
  - Not our core business
  - Pathways for common presentations i.e chest pain, stroke
  - Rarity of presentations leads to poor management
  - Assessment of life-threatening disorders v's non-compliance
- Pathway finally completed after 3 months consultation
- When pt refuses to consent to treatment *(assessment of capacity and competency)*
  - Duty of Care
  - Mental Health Act
  - Guardianship Act
  - Child Protection Act

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Challenges

- Clinical indications for medical and/or psychiatric admission
- Medically only one (1) gastroenterologist & has an interest in eating disorders *(fragmented care when not on-call)*
- Simplified process for
  - o Assessment *(specific clinical pathway)*
  - o Admission *(direct referral to physician)*
  - o Referral on discharge *(phone / fax)*
- Education of >200+ ED medical & nursing staff
- Rotation of medical registrars and junior medical officers
- Champions to lead change process

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Future directions

- Education of pathway current
- Pilot site JHH ED
- Other sites in HNE interested also
- Unknown implementation phase *(due to potential limited clientele numbers)*
- Ongoing evaluation of project
  - Compliance
  - Patient outcomes
  - Referrals

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Thank You

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