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SCREENING OVERVIEW

NEIL MCKERROW

KZN DoH

CURRENT FOCUS

1. Child survival

- ? Consideration for quality of survival
- ↓ mortality → ↑ morbidity

2. ECD

- Optimising potential
- Consideration of long term health conditions

LONG TERM HEALTH CONDITIONS

CONDITION/DISEASE	PREVALENCE / ANNUAL INCIDENCE	N ^o OF NEW CASES PER YEAR	N ^o IN CARE	CONTRIBUTION TO U5MR
Asthma (P)	10% - 15%			
HIV (I)	1.5% will require HAART	15 000	100 000	15 000
Rheumatic heart disease (P)	1 – 7 / 1000 children 5 – 15	1 000 5 – 15 yr old		None
Childhood cancer (I)	100 new cases per million / yr	500 U5 1 000 5 - 15	<1 000	300
Type 1 Diabetes (I)	10 / 100 000 new cases / yr	500 U5 1 000 5 – 15	5 000	300
Renal Disease (I)	12 new cases / million / yr	60 new cases / yr	< 1 000	30
Cerebral Palsy (I)	2 / 1000 births	2 000 / yr	> 10 000	500
Epilepsy (P)	5% have epilepsy			
Birth defects and cong abn (I)	6%	70 000	?	7 000

CONGENITAL ANOMALIES

		Birth prevalence	N° / year	Comment
Single gene disorders				
	Dominant single gene disorders	7/1000	7,735	e.g achondroplasia, hereditary spherocytosis
	Recessive single gene	1,7/1000	1,879	e.g sma, cystic fibrosis, albinism
	X linked single gene disorders	1,3/1000	1,437	e.g haemophilia, dmd,
			11,051	
Chromosomal disorders				
	Down syndrome	4,4/1000		
	Sex chromosome		2,321	
	Other chromosome		1,989	
			553	
			4,863	
Malformations and birth defects of multifactorial origin				
	Cardiovascular system		8,730	50% require surgery
	Genitalia		8,288	Many require surgery
	Musculo-skeletal System		9,614	Many require surgery
	Digestive System		3,094	Many require surgery
	Neural Tube defects		2,542	All require surgery and LT care
	Other CNS		1,437	
	Urinary tract		1,768	
	Facial clefts		1,547	All require surgery
	Ear, face, neck		553	
	Eye		332	
	Resp system		332	
	Other and multiple birth defects		2,984	
	Haemolysis causing nnj		507	
Unknown cause				
	Foetal alcohol		1,326	
			14,000	
Total		60 / 1000	57,054	
			72,968	

PURPOSE OF SCREENING

- ? – depends on who you speak to
- Reduce impact on patient and family
- Reduce consequences for health services
 - Cost effective use of resources
 - Minimise litigation
- Satisfy special interest group
- Because we can

CRITERIA FOR SCREENING – CLASSICAL

Wilson & Jungner 1968

- Condition should be important
- Must be treatable
- Facilities must exist for diagnosis & treatment
- Latent or early symptomatic stage
- Suitable test or examination
- Acceptable test
- Clear natural history of condition
- Agreement on whom to treat
- Cost efficient ie balance between screening & care
- Continuous process NOT once off

EMERGING CRITERIA

Andermann

- Must address recognised need
- Clear objectives for screening
- Defined target population
- Evidence of screening programme effectiveness
- Integrated & holistic programme
- Quality assurance
- Ensure informed choice, confidentiality & autonomy
- Promote equity & access for entire target population
- Benefits must outweigh harm

SPECTRUM

- Antenatal screening
 - Infections
 - Malformations
- Neonatal
 - Inborn errors
 - Malformations
 - Complications of care
- Childhood / Adolescents
 - Growth
 - Mental wellbeing.....

PRIORITISATION

- Level of prevention
 - 1^o / 2^o / 3^o
- 1st world vs 3rd world
- Public vs individual benefit

SELECTION

- Depends on Aim/ purpose
- Frequency
 - Common
- Impact on individual
 - Mortality / morbidity
- Impact on service
 - Resource intense
 - Expensive
 - Cost of litigation

RSA

- What
- Why
- When
- Where
- How



Based on individual merits

CONCLUSION

- Multiple problems / needs
- Many tests
- Limited resources

Do NOT screen just because we have a problem
or a test

A functional system is essential to ensure
benefit outweighs risk or cost