



Gun shot injuries in children: a ten year experience

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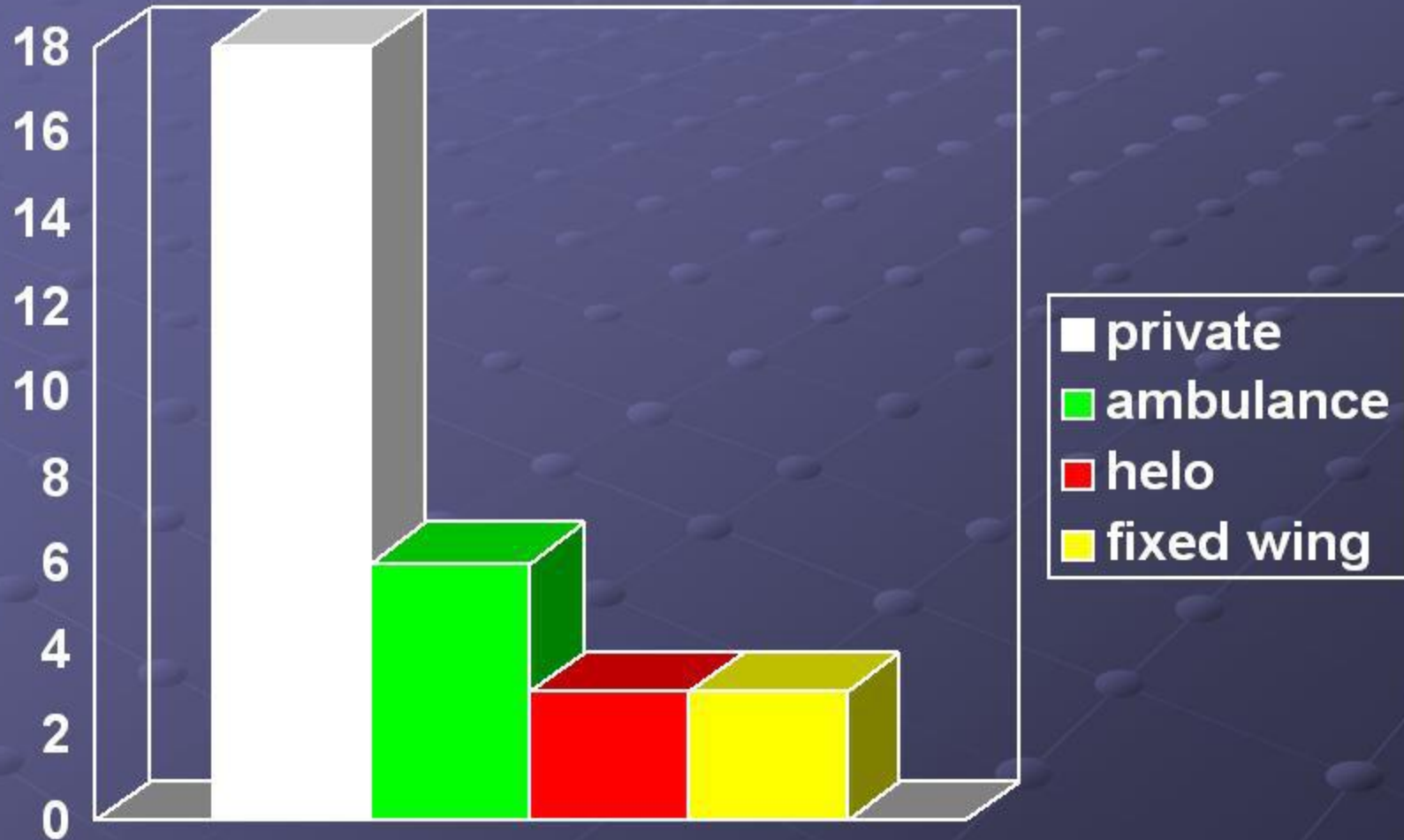
Weapon

- four .22
- one .270
- one 12 bore shot gun
- one blunt recoil (non-penetrating)
- 23 x air rifles

Place of injury

	N	%
Home	25	83
Bush	3	10
School	1	3
Sea	1	3

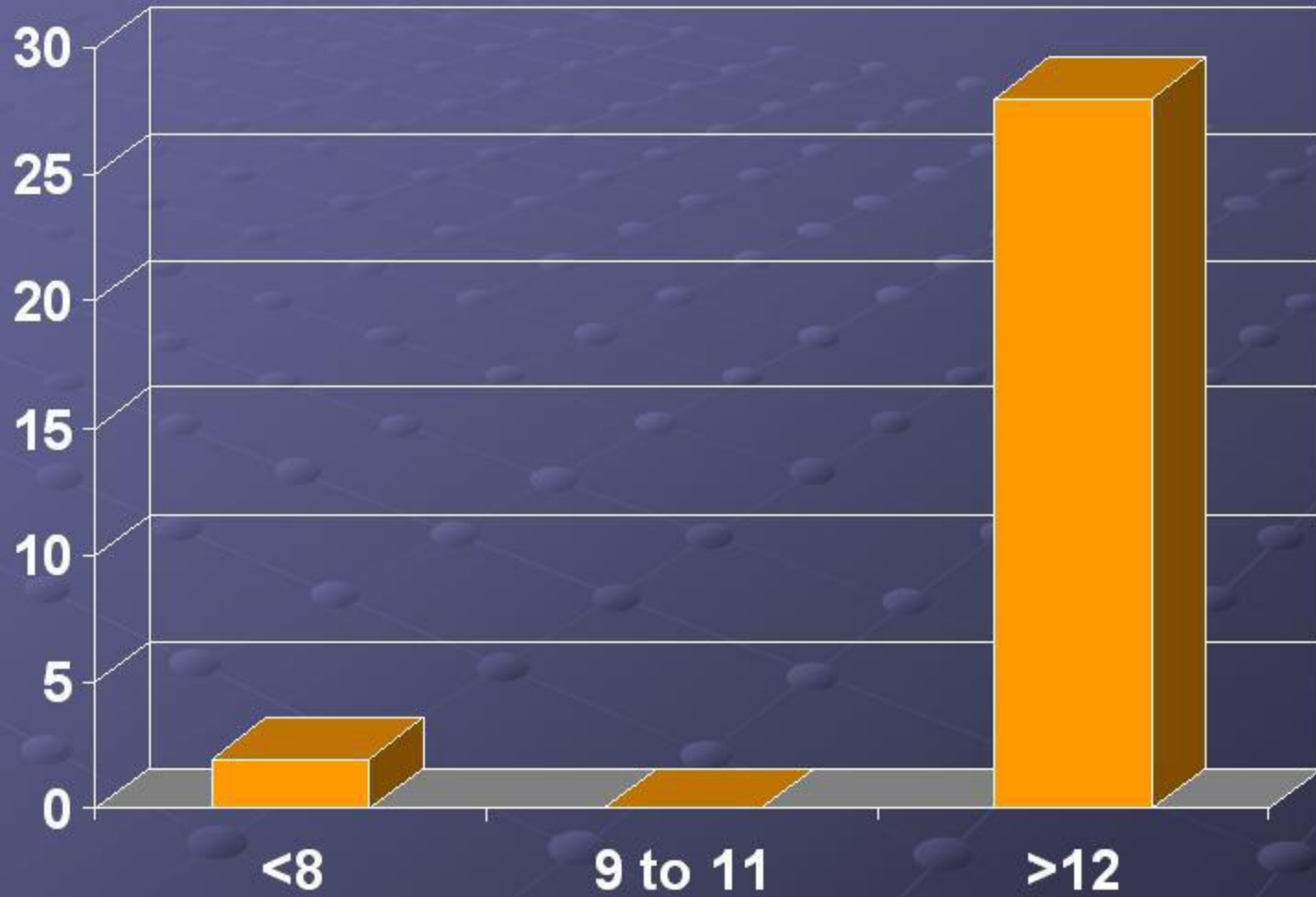
Transfer method



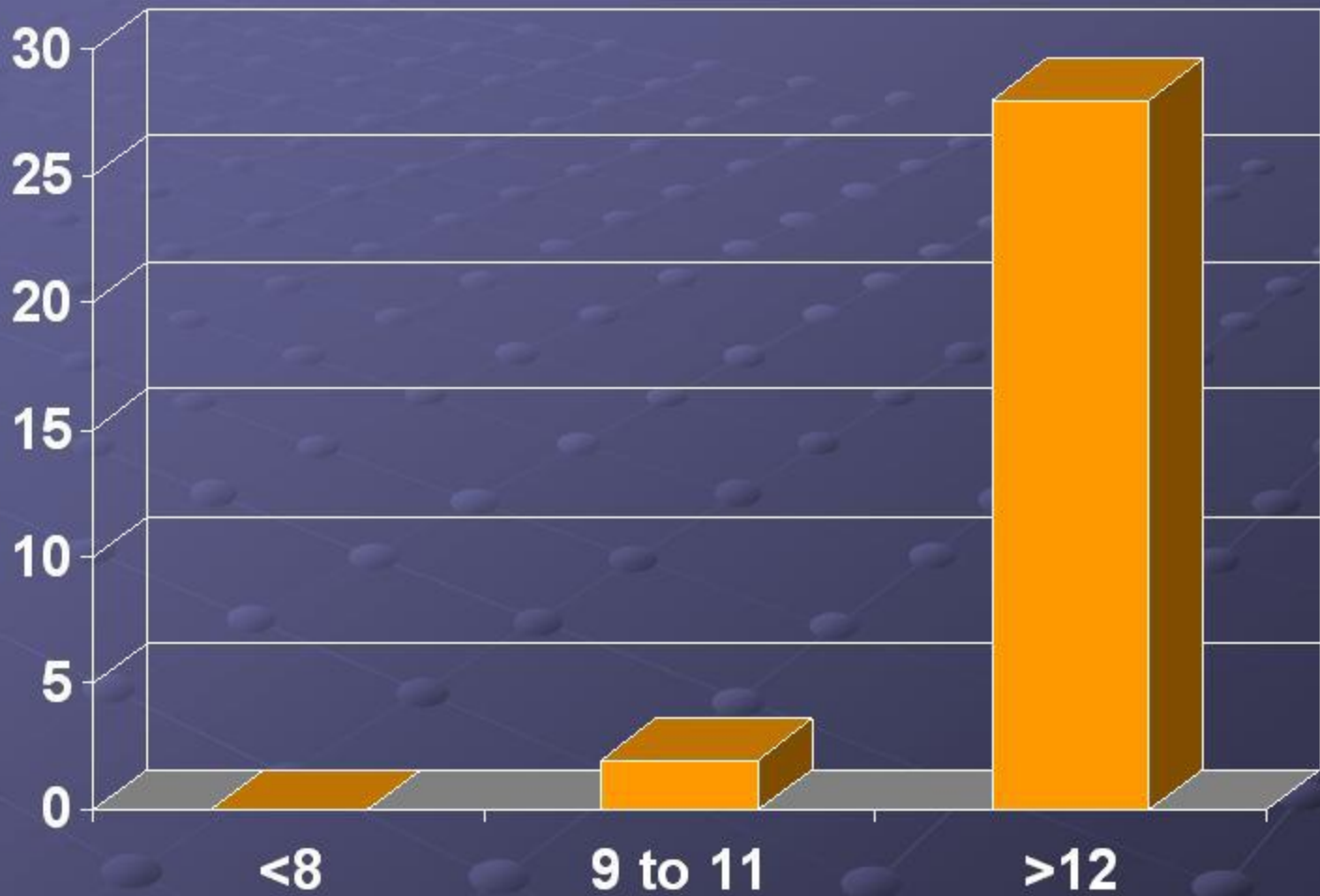
Injuries

- 66% head and/or neck
- Most serious injuries with large calibre $\geq .22$
- Majority injuries superficial
- 5 cases projectile in-situ

GCS



GCS at hosp

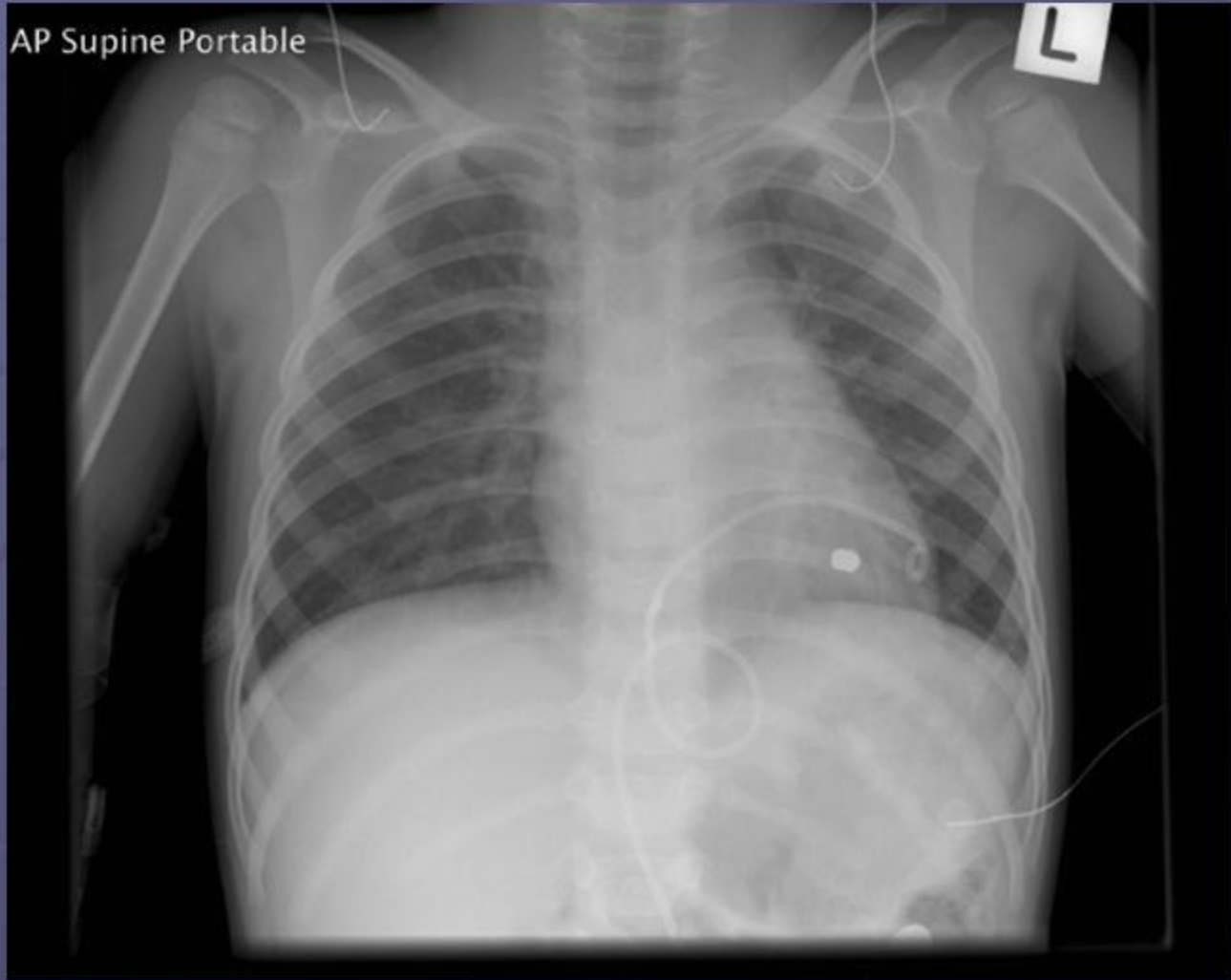


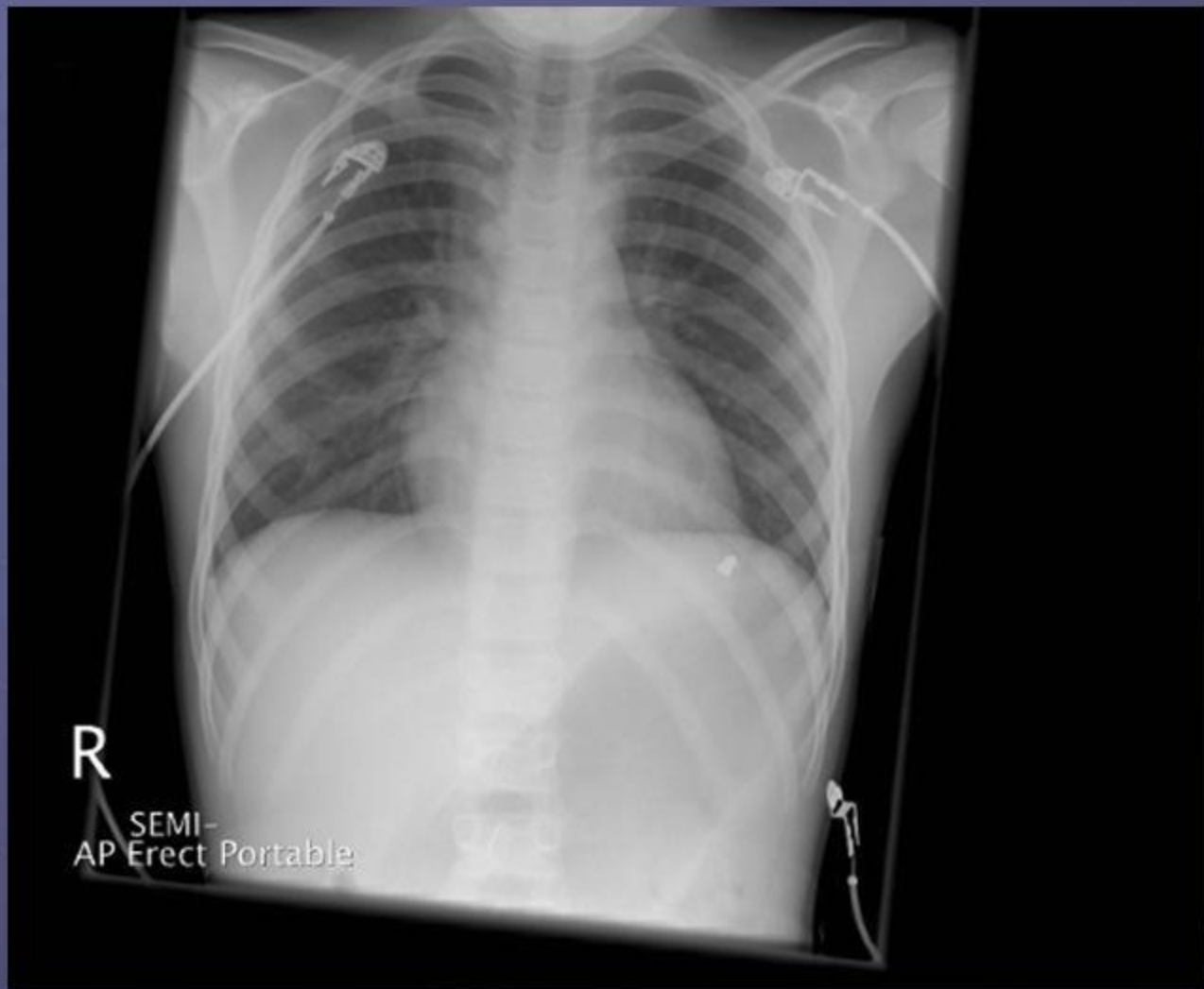


L

HORI-RAY

AP Supine Portable







Horizontal Ray
Portable
Supine

INTRODUCTION

- NZ has reputation for outdoors lifestyle
- NZ does not have liberal gun laws
- Children are at risk and suffer gun shot injuries



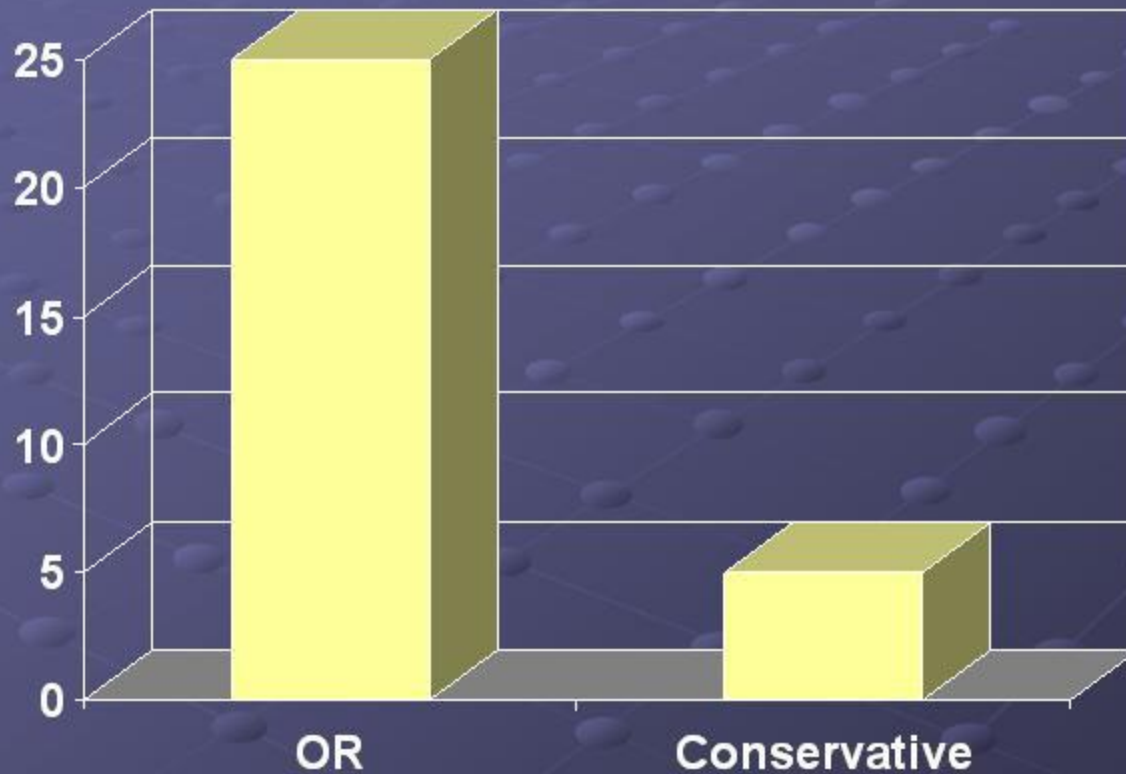


Admitting service

All paediatric services:

- Paediatric surgery
- Paediatric orthopaedics
- Paediatric cardiology
- Ophthalmology
- Neurosurgery
- Cardio-thoracic surgery
- Paediatric ENT surgery

Definitive treatment



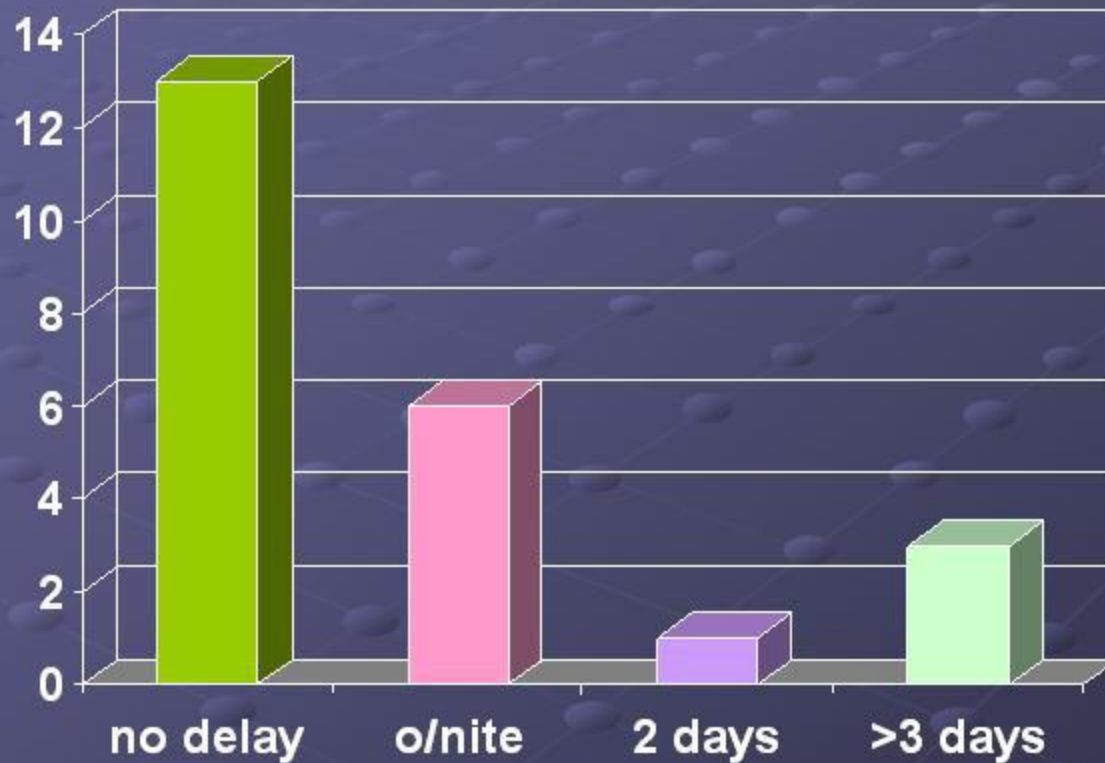
Operations

- 3 required >1 x OR procedure
- 5 treated conservatively
- Majority required subcutaneous pellet retrieval only

Operations

- Posterior fossa decompression
- RCA ligation
- Laparotomy, splenectomy, L hemicolectomy, repair stomach lac, stoma formation
- Removal of pellet from heart & close VSD
- Debridement of compound skull injury
- Craniotomy, evacuation of haematoma
- Partial thymectomy & removal of pellet via sternotomy

Delay to OR



Outcome

- 8 required PICU
- Hospital stay 1 – 52 days
- One fatality

Follow-up

- Median follow-up 3.5 months



Morbidity

- 13 pts (43%) have long term/disabling morbidity
- L CN VII LMN palsy; NG feeds; L hearing loss; L eye lid palsy
- R CN IV palsy; epilepsy
- persistent vitreous haemorrhage
- R hemiparesis, dyphasia
- L brachial plexus injury

AIM

- Auckland experience
- Injuries
- Outcome

Mortality

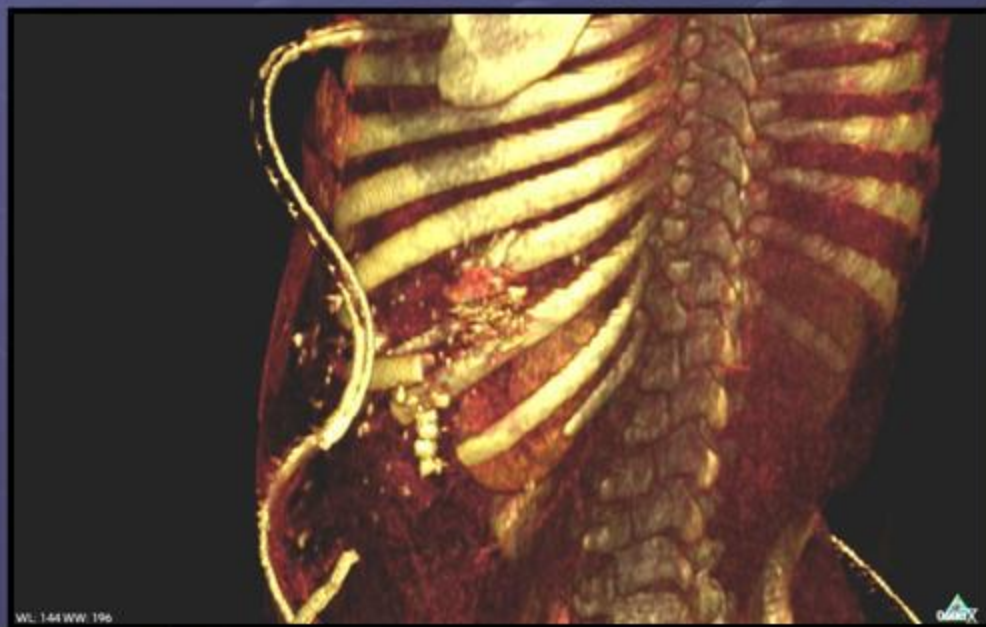
- 13 year-old
- Hunting
- .22 in head
- Cerebral injury

Airgun versus Others

	Airgun	Other
N	23	7
Head injury	11	5
Operation	19	6
LOS total	92	102
PICU	4	4
Morbidity	4	4
Mortality	0	1

Summary

- Most gunshot injuries from air rifles
- Incidence increasing
- Significant morbidity



Conclusion

Public awareness campaign



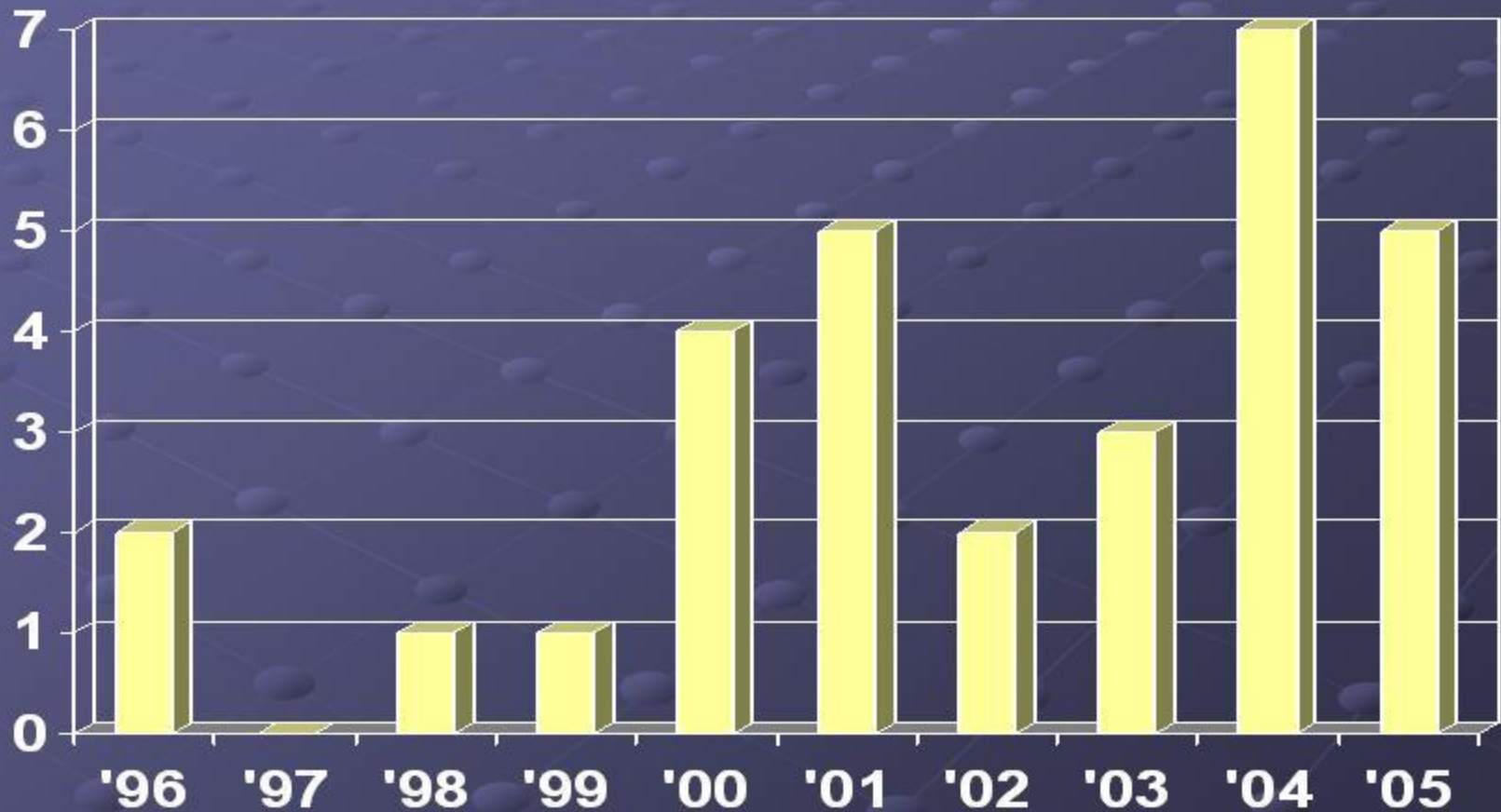
METHODS

- Retrospective review
- 10yr period 1996-2005
- Starship Children's Hospital
- Catchment ~1.5-2 million



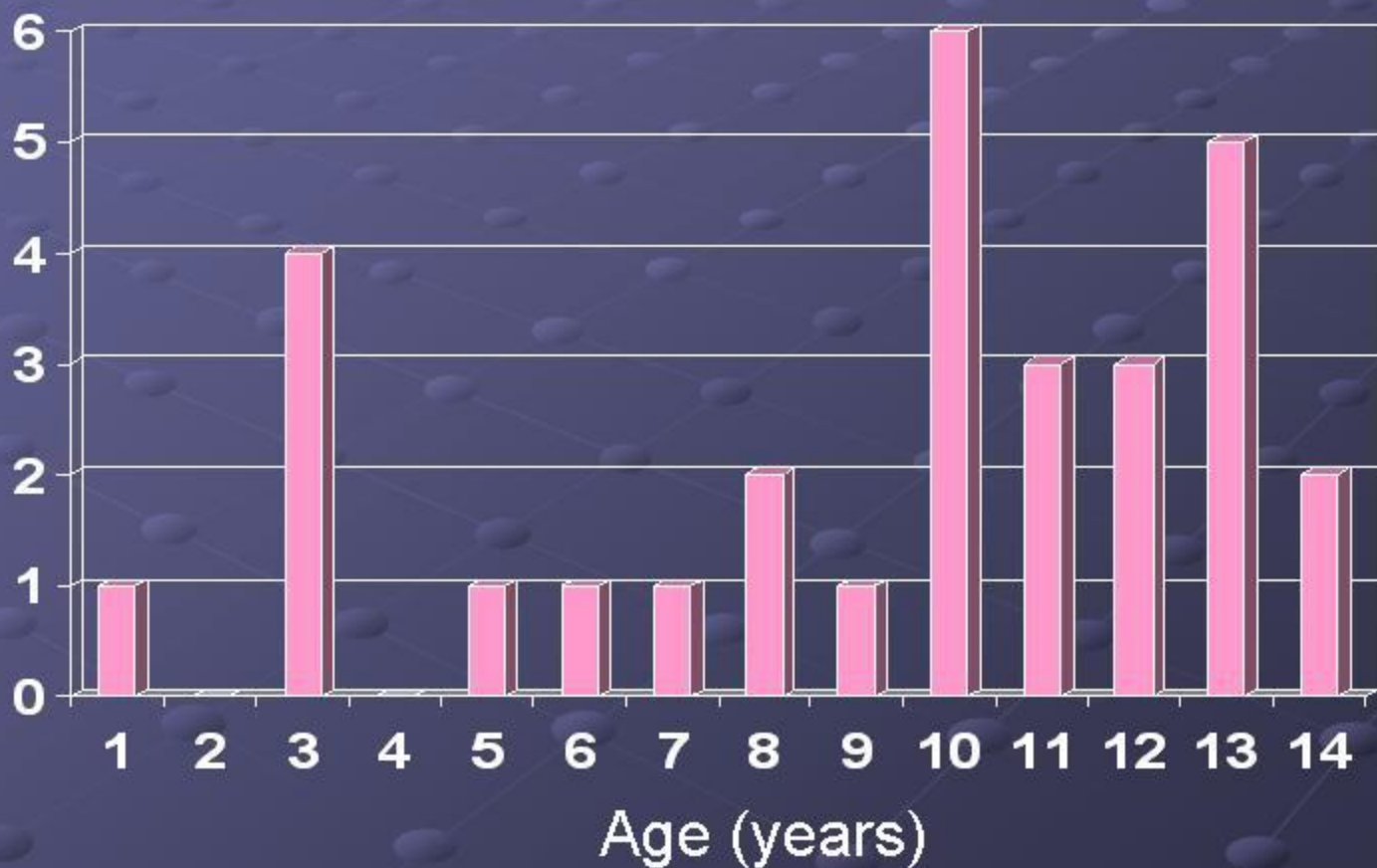
RESULTS

N = 30 (1 child every 4 months)



Age

Median 8.5 years

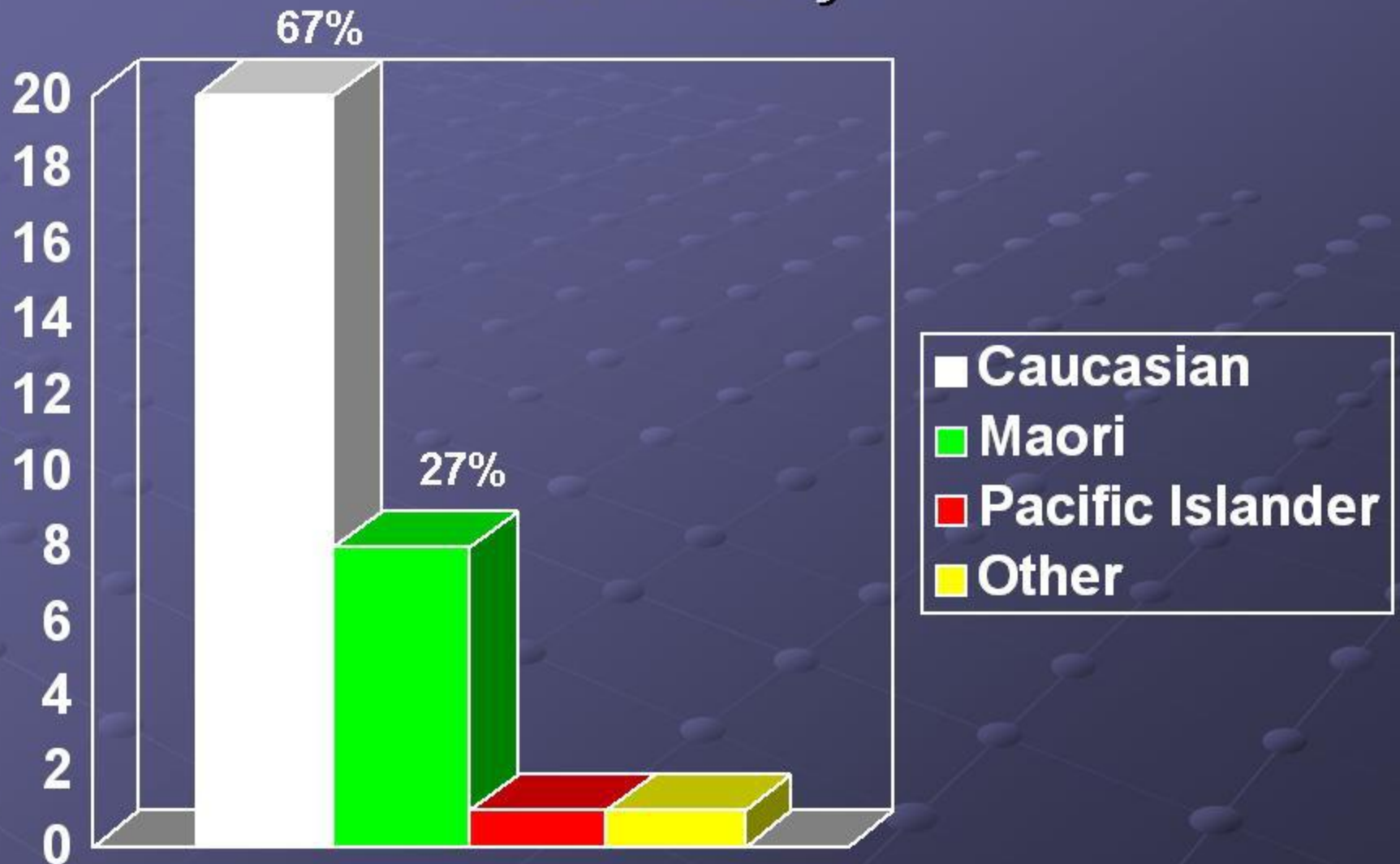


Gender

24 male (80%)



Ethnicity



Hospital of first presentation

