

Starship Community

School-based health care through an equity lens.



Overview

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- Starship Community Nurse
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- Nocturnal Enuresis (wetting)
- Rheumatic fever



Introduction

Starship Community

Starship Community is a multidisciplinary team of professionals providing nursing, allied health, technical and cultural support to children, young people and their families living within the Auckland DHB area.

School Based Services

- School based healthcare in priority primary and intermediate schools
- Immunisation programmes
- Support for children with wetting and soiling problems
- Facilitators in Health Promoting Schools

Locality-based services

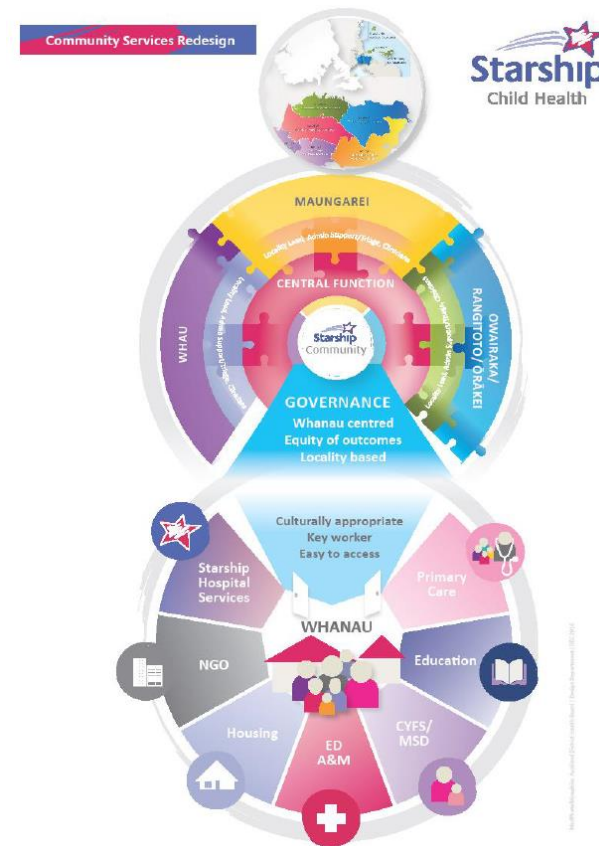
Starship Community comprises three localities (Owairaka/Rangitoto/Orakei, Whau and Maungarei) in which geographically grouped nursing hubs (geohubs) work within the local community to provide a whanau-centred range of services across the lifespan of infancy, childhood and youth.



Service redesign and transition

Development of a structure and service delivery model that is better at helping our staff to deliver excellent community services.

- More coordinated internally
- Better connection with other community based health services
- Focus on eliminating inequities
- Improve logistical support
- Structure that allows us to do more in the community and responsive to change





Well Child

Child Development

School Nursing

Homecare

Hearing and Ear Health

Health Promotion

Social Work

Refugee and New Migrant Services

Starship Community Nurse

- A flexible community workforce
- Able to cover all aspects of Nursing care
- See children age 0-18yrs

Starship Community Focus

- Whānau centred care
- Improve health and wellbeing for Maori and priority populations with high health and social needs
- Know/work closely with the community

Expectation from MOH

- Improve the health of our children
- Reduce inequities in health outcomes for preventative conditions
- Reduce rates of hospitalisation in primary aged children to national average pakeha rates or below

Overview of Skin Infections in NZ

- New Zealand has one of the highest rates of serious skin infection particularly in children
- Rates of cellulitis twice that of children in Australia and United States

Case study Skin Infection:

Bullous impetigo & scabies

History of events and treatment care

- 2 new students referred to Starship Community Nurse from school with sores
- Boy aged 9 with **Bullous Impetigo**
- Girl aged 6 with **Scabies**
- SCN who was at the Immunisation programme was contacted & parents were advised to seek prompt medical attention from their GP
- Previously seen by GP in South Auckland & was prescribed Hydrocortisone, Flucloxacillin & Loratadine at another DHB

Presentation and assessment

SCN did follow up at the school health clinic

FINDINGS:

Boy was noted to have **Extensive Bullous Impetigo**
particularly on his trunk & legs
Associated discomfort & pain was noted

Girl was noted to have **Scabies infestation**
Incessant scratching of arms and body and was very
uncomfortable

Bullous Impetigo

Photo taken with parental consent
Disclosure Form signed



Scabies Infestation on arms



Planning for interventions

- SCN escorted family to seek urgent medical attention at the local A&E in the community as they were not keen to go to Starship Children's Hospital (SSH)
- SCN discussed with parent the need for re-assessment and further treatment
- Family recent immigrants from Vietnam
- Dad on a student visa ,mum had a working visa and recently bought a dairy



Interventions

Dad reluctant to go to SSH— (concerned with costs, even though they had medical insurance through mother)

Agreed to go to a local A & E practice with SCN support

SCN escorted family to local A&E

Children registered under mother's name-so no costs incurred

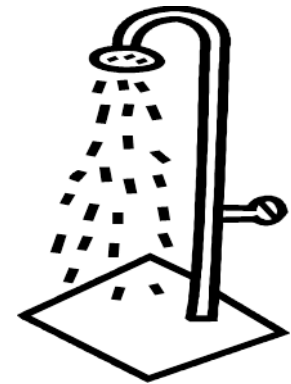


- **Prescribed Co-trimoxazole**
- (Deprim Su 240mg/5mls- 10 mls BD)
- Skin infections, cleaned, dressed & bandaged
- Child sent home with crutches and medication
- Child happy with crutches
- Attended A&E daily for dressing changes
- Post week one: **not resolved**
- Post week two: – **prescribed Augmentin**
- **Not resolved**
- **Both Children referred to SSH / ED dept.**



Starship ED Dept – prescribed

1. Sister : **Permethrin 5% to apply to whole body for Scabies** with instructions for use
2. Brother: Cephalexin (Cefalexin Sandoz) 250mg/5ml suspension, 10ml BD for 7 days
3. Bullous Impetigo infected child had daily dressings and tubi-grip applied on both legs for one week at their GP
4. Both children were off school for a week
5. Discharged to Starship Community Paediatric Homecare Services for dressings at home
6. SCN did Follow up medication compliance check



Monitoring and care

SCN did home visits to ensure:

Medication compliance

General hygiene education

- washing clothes & bed linen in hot water
- importance of good nutrition
- good personal hygiene practices
- hand hygiene technique demonstrated

Outcome

Skin conditions vastly improved

Parents and children very satisfied with the care provided



Monitoring- for Bullous impetigo

Post 3-4 weeks post medication treatment



Case study:

Nocturnal Enuresis

Whanau Focus/ child focus and profile: the client 's name and age has been changed
This year I was working with this client/whanau.

Child name: Isha, 8 years old child, lives with mum and younger sister age 6 years, both girls attending local primary and intermediate school, both girls spend time with their father who lives in a separate home. Isha likes her school and got on well with her teacher and few friends, she plays football in a local club.



- Isha was referred to Starship Community service by her family Doctor I contacted mum and Isha for an appointment to meet and complete
- The Enuresis assessment, This is a 'primary enurises' case as Isha was never dry at night and wore her pull-ups at night time. She was dry during the day,,
- Isha drank 2-3 glass of water a day, she had a drinking bottle which held 500mls water but mum mentioned that she brought home the drinking bottle half drank. Mum tried to wake her up during the night to use the toilet which was not helping.



Starship Community Intervention

- Starship Community Service have a Enuresis Working group who triage all referrals before allocated to Nurses.
- SCN visits the family and establishes good communication and trust with caregiver and child
- SCN assesses the child's readiness to use the Ramsey Coots alarm
- SCN visits the family every two to three weeks and weekly phone calls enquiring about progress and providing encouragement to child



Strategy used SCN

- Drinking – encourage the child to drink from drinking water bottle only,
- Recording star charts daily for quantity of water drunk
- Resources were given including, “Boss of the Bladder Book” and Dry bed pamphlet
- Ramsey Coots Alarm started for 4 months– Isha is shown how to turn on the Alarm before bed time and turn off when it rings, Parents are asked to wake the child up to turn off the alarm,
- 14 straight dry nights was achieved, the Alarm is turned off but the mat was left on the bed
- Over learning 7- 10 days was successful. Isha was encouraged to drink 4/5 glasses of water after evening meal and before bed time..
- Isha remained dry. The mat was returned.
- The programme’s outcome was successful,. The child developed confidence. The family was happy and grateful with the outcome
- Evaluation form was sent to family after 3 months. File was closed and discharged from our service.

Whanau perspective Rheumatic Fever

<https://youtu.be/knaoilQCH7I>

An atypical presentation of Rheumatic Fever

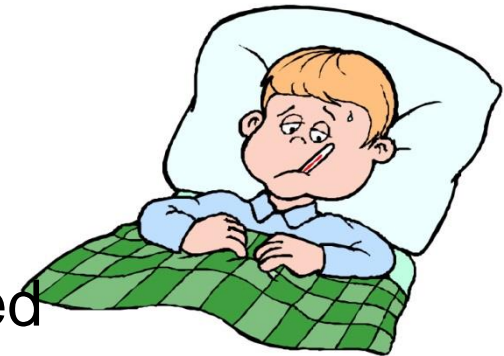


Whanau Profile.

- Consent obtained from parents to present this case study.
- X -11 years old, New Zealand born, of Samoan descendant live with both parents and 2 younger siblings
- His past medical history;
- A background of 2-4 months of progressive reduced exercise tolerance, dyspnoea and orthopnoea
- There were no symptoms or signs of Rheumatic fever.

History/ presenting symptoms:

- X presented to Kidz First Children Hospital CMDH 4 days ago with
- Progressive headaches,
- Early morning nausea and vomiting. No Sore Throat or body ache no fever, His weight: 41.7kg, Height: 152cms.
- He also had a murmur auscultated,
- These symptoms suggestive of raised intracranial pressure.

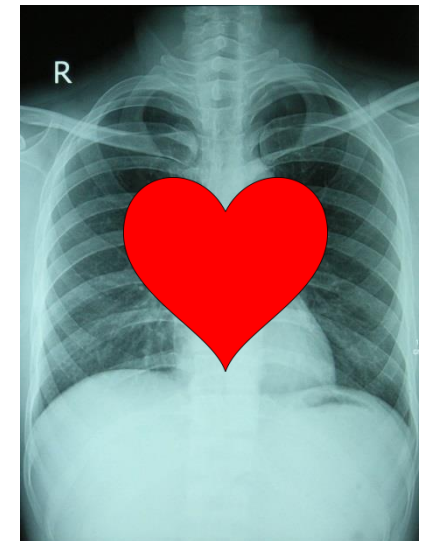


Investigation:

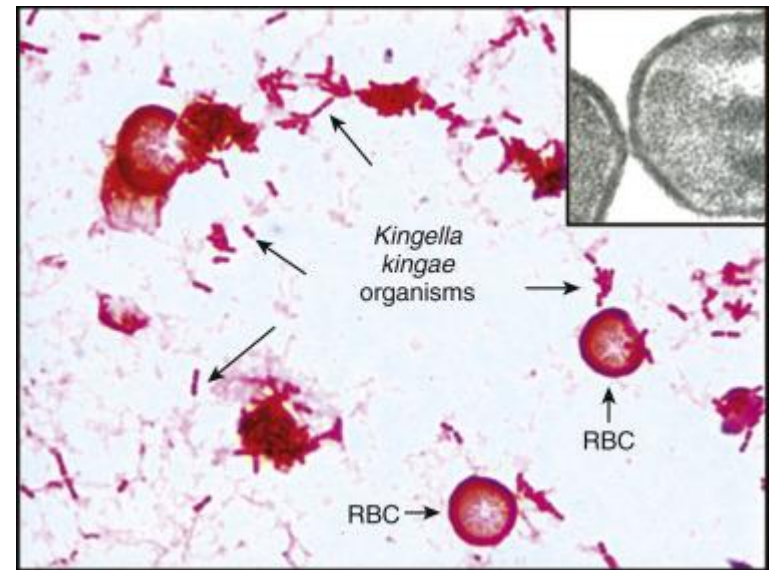
- At this point and time X went forward for an echocardiogram conducted by the Consultant Paediatrician and Cardiologist at Kidz First Children Hospital

This echocardiogram demonstrated:

- Severe Rheumatic Mitral regurgitation
- Aortic Regurgitation
- Severe Left Ventricular Dilation with systolic impairment
- Also noted hyper echoic lesion on the aortic valve which were suggestive of vegetation's.

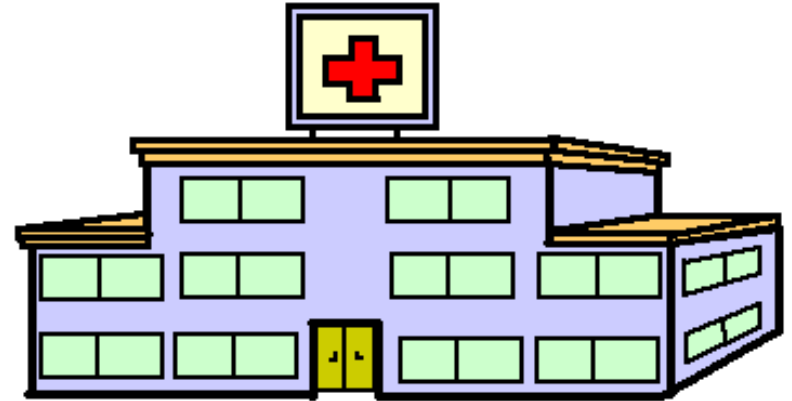


- Transferred to Starship Children Hospital on the following day for urgent mechanical aortic valve replacement.
- Multiple blood cultures did not isolate the cause for his vegetation but samples taken at theatre were sequenced using 16s RNA sequencing technology.
- This was compatible with a *Kingella Kingae* infection a known cause for infective Endocarditis.



Post-operative care:

- Paediatric Intensive Care Unit stay for 2 days due to complicated by on-going Left Ventricular dysfunction, then discharged to the ward for 2 weeks



Clinical Status prior to discharge
Heart rate 85/m,
Respiratory rate 28/m
B/P 85/49 mmHg
Temperature 35.3c

He is alert, well perfused, has comfortable breathing, good air entry and no added sounds, Wound healing well, Liver not enlarged

Discharged Plan/ Ongoing treatment.

- Shared care between Starship Community & Counties Manukau Home health care.
- Family trained to do INR checks: target level 2.0-3.0. Family to contact SSH Cardiologist if X develops fever/ any concern.
- IM Benzathine Penicillin 1.2mu w/ lignocaine 2% at 0.25mls added to Bicillins every 28 days
- Warfarin 5.5mg daily [target INR 2-3.
- 6 Monthly dental checks is encouraged,
- 6 monthly weights. B/P, Pulse checked.
- Monthly sore throat check
- X is doing well at school. playing basketball.
- Participating in cultural Samoan group.



Thank You
kia nga mihi

Any Questions?
i nga patai?