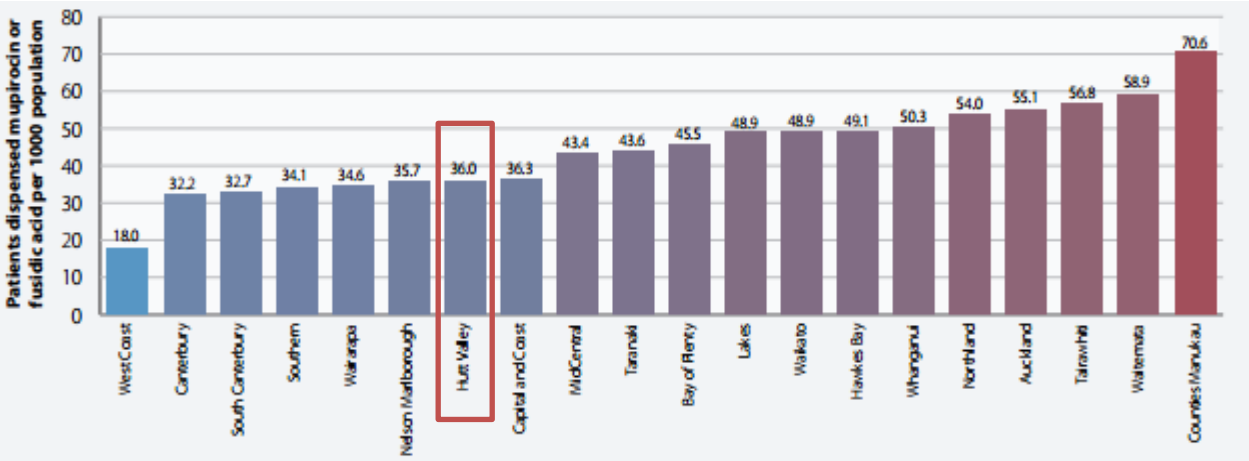
Te Awakairangi Health NETWORK

March 2017

Where now with topical antibiotics?

- The rate of antibacterial resistance in New Zealand and worldwide in *Staphylococcus aureus*, a frequent causative organism in skin infections such as impetigo and infected eczema, is increasing.

- Although the number of dispensed prescriptions for mupirocin is slowly declining and fusidic acid has decreased from a peak in 2013, dispensing rates for the latter remain highest in young children (< 5 years), in Māori and Pacific peoples and in people living in the North Island (see table below). This reflects higher rates of skin and soft tissue infections in these groups. [1]



July 2015 to June 2016 dispensing rates by DHB for mupirocin or fusidic acid.

- Expert opinion suggests there are now few clinical situations in which topical antibiotics are appropriate. A decision to treat will depend on the patient's age, extent and severity of infection, co-morbidities and household circumstances. [1,2]

- Two clinical situations where they may be appropriate are:
  - 2nd line for patients with areas of localised impetigo (eg ≤ 3 lesions), if hygiene measures and topical antispetics have not resolved the lesions within an approriate timeframe eg 5 to 7 days.[3]
  - patients with recurrent skin infections due to *S. aureus* who may require nasal decolonisation with either fusicid acid or mupriocin once susceptability is known.[3,4]

- Most minor skin infections are self-limiting and resolve with good skin hygiene measures e.g. cleaning and covering the lesion. A prescription for a topical antiseptic (rather than a topical antibiotic) is a pragmatic next step if hygiene interventions are not sufficient.[3]

- If topical antibiotics are prescribed, instruct the parent/carer to use the medicine for up to seven days only.[3]

- Discourage the practice of saving unfinished tubes as a "go-to" first-aid measure for the household.[3]

- The role of combination antimicrobial/corticosteroid products eg hydrocortisone, natamycin and neomycin cream and ointment (Pimafucort) and betamethasone/fusidic acid cream (Fucicort) is unclear due to a lack of quality research and concerns about increasing resistance.[2]

- Currently it is suggested combination products are only used short term for the treatment of small areas of localised skin infection in patients with underlying inflammatory skin conditions.[2]

General messages for preventing skin infection[2,3]

- If a skin injury occurs, clean and cover it to prevent infection, and change dressings regularly
- Use an emollient to treat dry skin
- Ensure skin conditions such as eczema or dermatitis are optimally managed
- Use soap substitutes if skin is dry or damaged, and avoid prolonged exposure to hot water
- Keep fingernails and toenails trimmed and clean
- Avoid scratching lesions
- Regularly wash toys using a mild disinfectant
- Avoid sharing bath water if a family member has a skin infection
- Wash and dry hands after using the toilet and before eating
- If a patient and/or their family require decolonisation to reduce *S. aureus* carriage, encourage:
    - regular use of antibacterial soaps or washes and weekly dilute bleach baths,
    - intensification of personal hygiene practices and don't share items such as towels, facecloths, linen.

References

1. Topical antibitoics for skin infections: should they be prescribed at all? Retrieved from http://www.bpac.org.nz/2017/docs/topical-antibiotics-1.pdf (March 2017).
2. Topical antibiotics: very few indications for use. Best Practice Journal. 2014;64:26-35.
3. Topical antibiotics for skin infections: when are they appropriate? Retrieved from http://www.bpac.org.nz/2017/docs/topical-antibiotics-2.pdf (March 2017).
4. Starship Children's Health. Cellulitis/Skin Infections. Retrieved from https://www.starship.org.nz/for-health-professionals/starship-clinical-guidelines/c/cellulitis/#Antibiotic-Choice (Feb, 2017)