Mongolian Emergency Service
Hospital Hygiene Project
MeshHp.mn

Decontamination of MRSA carriers in patients and staff

It seems that MRSA is an upcoming problem both in patients and staff.
Therefore, it seems necessary to think about strategies for decontamination.

We would recommend to start with some pilot studies in a small number of persons who are proven MRSA carriers, maybe 10-20 patients.
Aim: To document results (how many are negative at the end?) and get experience what is possible and what problems emerge.
Also we would recommend a pilot study with staff carriers in maximum 10 persons with the same aim.
Keep in mind: you will not have 100 % success!

The following lists the politics in Germany and what might be possible in Mongolia:

What to do with patients	**Germany, Essen**	**Mongolia**
Isolation	Own room or cohort with other MRSA carriers; Own toilet; Door closed; Sign the room that visitors have first to contact staff Only furniture in room which can be disinfected	Own room should be aimed for; Does not seem possible? Possible? Reduce furniture; No textiles like carpets;
Staff protection	Gown, gloves, cap always; Mask in case of wound infection, MRSA in nose, pharynx, lung or risk of aerosols (bronchitis, pneumonia, rhinitis, also washing of patients)	Always gown, gloves, cap, mask Additionally, very often hand disinfection!
Protection of visitors	Same like staff	Possible? Otherwise at least hand disinfection very often!
Treatment of patient for 7 days	Mupirocin (Turixin) in nose, 3 times a day;	Is Mupirocin available in pharmacies? Or too expensive? Alternative might be some

		antiseptic nose cream, perhaps prepared by hospital pharmacy? We did this here with Octenidin some years ago
	Washing/showering (also hair washing) with antiseptic product (eg Octenidin, Chlorhexidin) daily;	?
	Washing of mouth and pharynx with antiseptic product (eg PVP iodine, Octenisept) at least daily	Should be possible
Control after treatment	2 days waiting, then screening, best of all different locations: nose, pharynx, anal, wound (in case of), area of last finding Repeat that once or twice on following days If ALL Screenings are negative, patient is declared negative	Might be possible; Nose and wound and area of last finding might be the minimum
Medical devices	Let in isolation room (bowl for washing, blood pressure cuff, stethoscope, clinical thermometer …) and disinfect after every use.	possible
Stop recontamination	Disinfect daily all personal things in daily or often contact with patient: razer, glasses, hearing instrument, Walkman, cellphone, dental plate, toothbrush…); Change bed linen every day Change underwear and – best of all – all clothes daily and wash them daily Disinfect all surfaces daily	Is that possible? Possible? Seems impossible with private clothes? Give them clothes from hospital which will be washed daily by hospital? possible

What to do with staff	Germany, Essen	Mongolia
Treatment of person for 7 days	Mupirocin (Turixin) in nose, 3 times a day; Washing/showering (also hair washing) with antiseptic product (eg Octenidin, Chlorhexidin) daily; Washing of mouth and pharynx with antiseptic product (eg PVP iodine, Octenisept) at least daily	Mupirocin; also see above ? Should be possible
Control after treatment	2 days waiting, then screening, best of all different locations: nose, pharynx, anal, wound (in case of), area of last finding Repeat that twice daily – so at the end screening on 3 different days If ALL Screenings are negative, person is declared negative	Might be possible In case of failure see appendix
Stop recontamination	Disinfect daily all personal things in daily or often contact with person: razer, glasses, hearing instrument, Walkman, cellphone, dental plate; also instruments like own stethoscope, toothbrush…; Change bed linen every day Change underwear and – all clothes daily and wash them daily	Is that possible? Possible? Seems unpossible

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Appendix

In case of failure of decontamination of staff, you should try a second time.
After that perhaps try a third time and include family:

- Are family members also carriers and must be treated?
- What about household animals, also carriers?
- How is the handling of bed linen and personal things (toothbrush …) at home during decontamination period?
- You also should think about systemic antibiotic treatment, see as example the Netherlands politics:

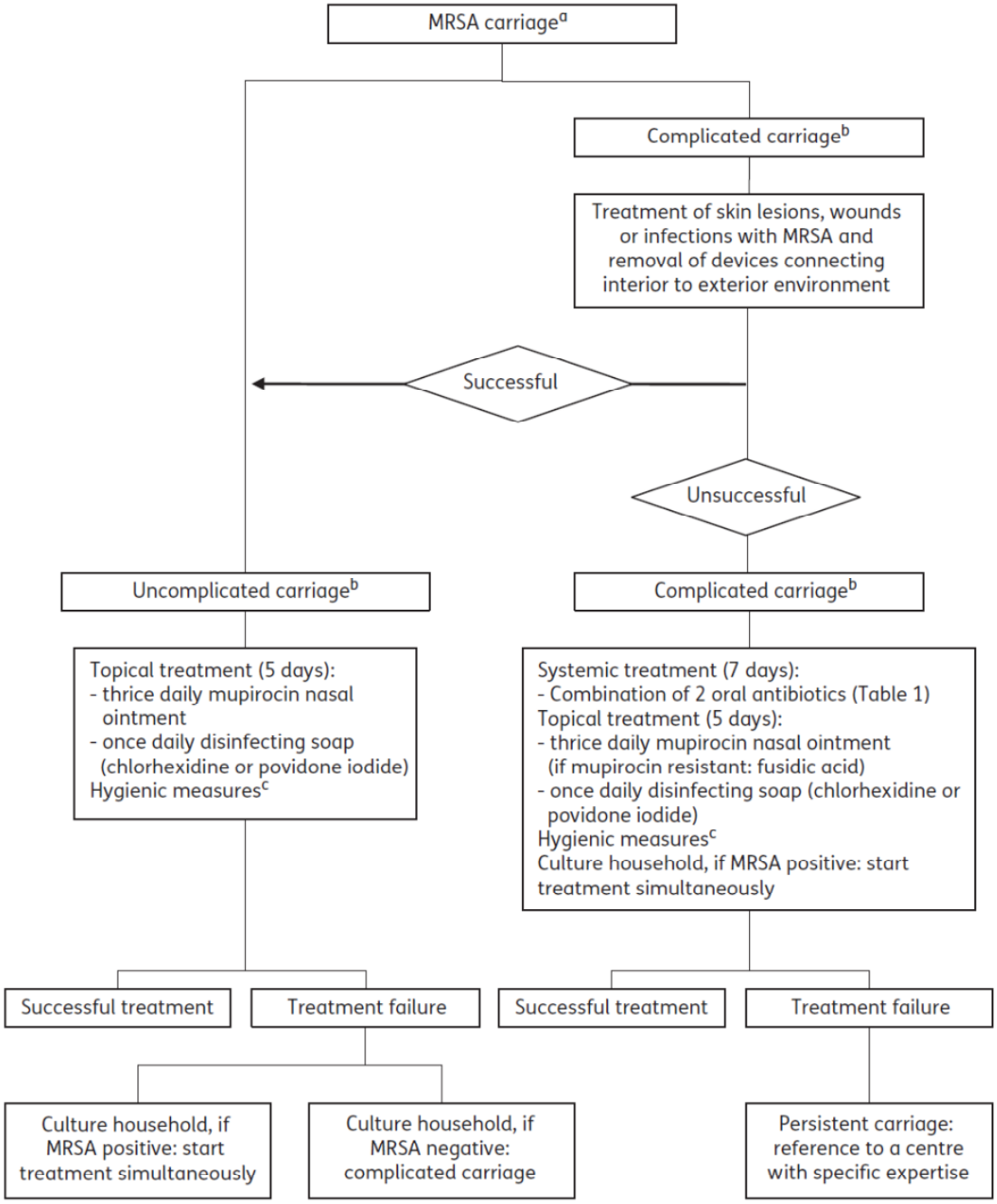

Table 1. Oral combination therapy for eradication of MRSA carriage in complicated carriage according to the SWAB guideline[14]

Guideline	Antibiotic 1	Antibiotic 2
Recommended	200 mg of trimethoprim twice daily *or* 200 mg of doxycycline once daily	600 mg of rifampicin twice daily
Alternative[a]	600 mg clindamycin thrice daily *or* 500 mg of clarithromycin twice daily *or* 750 mg of ciprofloxacin twice daily *or* 500 mg fusidic of acid thrice daily	500 mg of fusidic acid thrice daily

All treatments are prescribed preferably by means of tablets. The dosages in this table are the recommended dosages for an adult patient of about 70 kg. Combination therapy is preferred because of better effectiveness and a decreased chance of developing resistance.
[a]Alternative options should only be used when there is a contraindication (e.g. *in vitro* resistance, intolerance) for the recommended options.

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Eradication of carriage with methicillin-resistant *Staphylococcus aureus*: effectiveness of a national guideline

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