

# Outbreak of Klebsiella oxytoca in an Austrian neonatal intensive care unit resolved by intensified hygiene-precautions



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## **Background:**

Neonatal intensive care units are vulnerable to nosocomial outbreaks caused by Enterobacteriaceae. We describe a clonal outbreak of Klebsiella oxytoca affecting 10 infants in the neonatal intensive care unit at Klinikum Wels-Grieskirchen, Austria, during a period of 4 months from January until April 2014.

## **Findings:**

Klebsiella oxytoca with identical antibiogram profile was found mainly in routinely done throat-swabs and stool samples but also three times in eye-swabs from infants with conjunctivitis. One strain could be cultivated from a blood culture from an infant with neonatal sepsis. The patient recovered after adequate antimicrobial therapy.

We studied systematic bacteriological samples from the environment and from healthcare workers.

K.oxytoca was found on a computer-keyboard, on the door of an incubator and on a bed frame.

No K.oxytoca was isolated from healthcare worker samples.

Genotyping confirmed the presence of an epidemic, clonal strain (1).



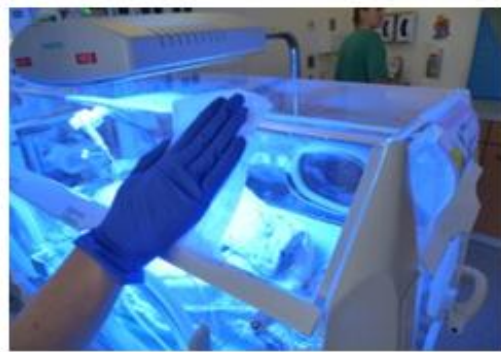
(1) Results  
Genotyping K.oxytoca

## Measures:

To stop cross-contamination we intensified our standard hygiene precautions:

- Opening and closing of the incubator-doors without using hands – if not possible, hand disinfection before manipulation of the door and wipe disinfection afterwards.
- Wipe disinfection of the incubator-surface two times daily.
- Change of the incubator-blanket daily.
- Change of the computer-keyboards to disinfectable keyboards.

We pointed out again the importance of the „5 moments of hand hygiene“.





**Results:**

After the introduction of intensified hygiene-precautions no *Klebsiella oxytoca* – strain could be cultivated from any new-admitted infant.

**Summary:**

Microbiological surveillance of the digestive tract of neonates are important to find cross-contamination. Environment investigations can help to find the source of infection and microbial transmission pathways. Intensified hygiene precautions are useful to stop a nosocomial outbreak.