To describe clinical, phenotypic and genotypic characteristics of CRE infections at a free-standing U.S. children's hospital.

**AIM**

To describe clinical, phenotypic and genotypic characteristics of CRE infections at a free-standing U.S. children's hospital.

**METHODS**

- **CRE isolates**, detected by a positive modified Hodge test, were identified through active surveillance in the clinical microbiology laboratory at Children's Hospital Los Angeles since 2005.
- **Medical records** were reviewed.
- **Resistance testing and molecular characterization of CRE** isolates, detected by a positive modified Hodge test, were performed for each isolate including:
  - Antimicrobial susceptibility testing by Etest or disk diffusion for each isolate including:
  - PCR-based replicon typing was performed for IncF related plasmid backbones.
  - Multilocus sequence typing was performed for K. pneumoniae STs.

**RESULTS**

- **Twelve isolates from 10 patients demonstrated a positive Modified Hodge test.**
  - All patients except one (pt #4) had underlying conditions as risk factors for prolonged hospitalizations or recurrent infections.
  - All patients had indwelling devices (central lines, surgical drains, endotracheal tube, surgical drain, Foley catheter) or had intermittent urinary catheterization multiple times daily.
  - Travel history was significant in two patients.

**SUMMARY**

- **K. pneumoniae** from ST131 carrying the KPC-3 carbapenemase have previously been reported in adult infections in the US (Kim, 2012), but this is the first report in pediatric patients.
- To the best of our knowledge, this is the first report of NDM carbapenemase-producing Enterobacteriaceae associated with pediatric infection or colonization in the US.
- This cluster of epidemiologically unlinked cases in Los Angeles, associated with Klebsiella pneumoniae ST131 carrying the KPC-3 carbapenemase, appears to have become endemic (Marquez, 2013), reflecting the highly dynamic spread of CRE in the US and across the globe.

**REFERENCES**


**CONTACT INFORMATION**

Pia S. Pannaraj, MD, MPH
Children’s Hospital Los Angeles 4640 W. Sunset Blvd, MS511
Los Angeles, CA 90027
Phone: (323) 361-2509
Email: ppannaraj@chla.usc.edu

**ADAPTATION FROM**


**Adapted from Nordmann, 2011**