A PROSPECTIVE SURVEY OF PSEUDOMONAS AERUGINOSA COLONIZATION AND INFECTION IN INTENSIVE CARE UNIT PATIENTS

Cohen Regev, Babushkin Frida, Cohen Shoshana, Afraimov Marina, Shapiro Maurice, Uda Martina, Adler Amos, Ben-Ami Ronen, Paikan Svetlana
Sanz Medical Center, Laniado Hospital, Netanya, Israel

Materials & Methods

ICU patients were screened on admission and weekly from the pharynx, endotracheal aspirate (EA), rectum and urine. Surveillance for PA may improve empiric antimicrobial therapy, since colonizing strains may subsequently cause infections. The source of colonization may be 'endogenous' or 'exogenous' (from the environment or other patients). The PA source determines the measures needed for infection control.

Results and Discussion

ICU patients were screened on admission and weekly from the pharynx, endotracheal aspirate (EA), rectum and urine. Surveillance for PA may improve empiric antimicrobial therapy, since colonizing strains may subsequently cause infections. The source of colonization may be 'endogenous' or 'exogenous' (from the environment or other patients). The PA source determines the measures needed for infection control.

Colonization on admission was a significant risk factor for PA-related infection. PA origin in this non-outbreak setting was mainly 'endogenous' and PA-types were generally patient- and site-specific, especially in the GI tract.

Conclusions

1. PA origin in this non-outbreak setting was mainly 'endogenous' and PA-types were generally patient- and site-specific, especially in the GI tract.
2. Colonization on admission was a significant risk factor for PA-related infection.
3. Detection of PA on surveillance cultures may serve as a good predictor of PA clinical infection and also of the infecting clone, while negative screening is a very good negative predictor for clinical infection.
4. VAP-related strains are better predicted by upper airways screening rather than rectal screening.

Background

Pseudomonas aeruginosa (PA) is a leading pathogen in intensive care units (ICUs). Surveillance for PA may improve empiric antimicrobial therapy, since colonizing strains may subsequently cause infections. The source of colonization may be 'endogenous' or 'exogenous' (from the environment or other patients). The PA source determines the measures needed for infection control.

In this prospective study we aimed to investigate the sources of PA. 'Endogenous' or 'exogenous' (from the environment or other patients).

The PA source determines the measures needed for infection control.

Background

Pseudomonas aeruginosa (PA) is a leading pathogen in intensive care units (ICUs). Surveillance for PA may improve empiric antimicrobial therapy, since colonizing strains may subsequently cause infections. The source of colonization may be 'endogenous' or 'exogenous' (from the environment or other patients). The PA source determines the measures needed for infection control.

'Endogenous' or 'exogenous' (from the environment or other patients).

The PA source determines the measures needed for infection control.

Results and Discussion

ICU patients were screened on admission and weekly from the pharynx, endotracheal aspirate (EA), rectum and urine. Surveillance for PA may improve empiric antimicrobial therapy, since colonizing strains may subsequently cause infections. The source of colonization may be 'endogenous' or 'exogenous' (from the environment or other patients). The PA source determines the measures needed for infection control.

Colonization on admission was a significant risk factor for PA-related infection. PA origin in this non-outbreak setting was mainly 'endogenous' and PA-types were generally patient- and site-specific, especially in the GI tract.

Conclusions

1. PA origin in this non-outbreak setting was mainly 'endogenous' and PA-types were generally patient- and site-specific, especially in the GI tract.
2. Colonization on admission was a significant risk factor for PA-related infection.
3. Detection of PA on surveillance cultures may serve as a good predictor of PA clinical infection and also of the infecting clone, while negative screening is a very good negative predictor for clinical infection.
4. VAP-related strains are better predicted by upper airways screening rather than rectal screening.

Background

Pseudomonas aeruginosa (PA) is a leading pathogen in intensive care units (ICUs). Surveillance for PA may improve empiric antimicrobial therapy, since colonizing strains may subsequently cause infections. The source of colonization may be 'endogenous' or 'exogenous' (from the environment or other patients). The PA source determines the measures needed for infection control.

In this prospective study we aimed to investigate the sources of PA. 'Endogenous' or 'exogenous' (from the environment or other patients).

The PA source determines the measures needed for infection control.

Results and Discussion

ICU patients were screened on admission and weekly from the pharynx, endotracheal aspirate (EA), rectum and urine. Surveillance for PA may improve empiric antimicrobial therapy, since colonizing strains may subsequently cause infections. The source of colonization may be 'endogenous' or 'exogenous' (from the environment or other patients). The PA source determines the measures needed for infection control.

Colonization on admission was a significant risk factor for PA-related infection. PA origin in this non-outbreak setting was mainly 'endogenous' and PA-types were generally patient- and site-specific, especially in the GI tract.

Conclusions

1. PA origin in this non-outbreak setting was mainly 'endogenous' and PA-types were generally patient- and site-specific, especially in the GI tract.
2. Colonization on admission was a significant risk factor for PA-related infection.
3. Detection of PA on surveillance cultures may serve as a good predictor of PA clinical infection and also of the infecting clone, while negative screening is a very good negative predictor for clinical infection.
4. VAP-related strains are better predicted by upper airways screening rather than rectal screening.

Background

Pseudomonas aeruginosa (PA) is a leading pathogen in intensive care units (ICUs). Surveillance for PA may improve empiric antimicrobial therapy, since colonizing strains may subsequently cause infections. The source of colonization may be 'endogenous' or 'exogenous' (from the environment or other patients). The PA source determines the measures needed for infection control.

In this prospective study we aimed to investigate the sources of PA. 'Endogenous' or 'exogenous' (from the environment or other patients).

The PA source determines the measures needed for infection control.

Results and Discussion

ICU patients were screened on admission and weekly from the pharynx, endotracheal aspirate (EA), rectum and urine. Surveillance for PA may improve empiric antimicrobial therapy, since colonizing strains may subsequently cause infections. The source of colonization may be 'endogenous' or 'exogenous' (from the environment or other patients). The PA source determines the measures needed for infection control.

Colonization on admission was a significant risk factor for PA-related infection. PA origin in this non-outbreak setting was mainly 'endogenous' and PA-types were generally patient- and site-specific, especially in the GI tract.

Conclusions

1. PA origin in this non-outbreak setting was mainly 'endogenous' and PA-types were generally patient- and site-specific, especially in the GI tract.
2. Colonization on admission was a significant risk factor for PA-related infection.
3. Detection of PA on surveillance cultures may serve as a good predictor of PA clinical infection and also of the infecting clone, while negative screening is a very good negative predictor for clinical infection.
4. VAP-related strains are better predicted by upper airways screening rather than rectal screening.

Background

Pseudomonas aeruginosa (PA) is a leading pathogen in intensive care units (ICUs). Surveillance for PA may improve empiric antimicrobial therapy, since colonizing strains may subsequently cause infections. The source of colonization may be 'endogenous' or 'exogenous' (from the environment or other patients). The PA source determines the measures needed for infection control.

In this prospective study we aimed to investigate the sources of PA. 'Endogenous' or 'exogenous' (from the environment or other patients).

The PA source determines the measures needed for infection control.

Results and Discussion

ICU patients were screened on admission and weekly from the pharynx, endotracheal aspirate (EA), rectum and urine. Surveillance for PA may improve empiric antimicrobial therapy, since colonizing strains may subsequently cause infections. The source of colonization may be 'endogenous' or 'exogenous' (from the environment or other patients). The PA source determines the measures needed for infection control.

Colonization on admission was a significant risk factor for PA-related infection. PA origin in this non-outbreak setting was mainly 'endogenous' and PA-types were generally patient- and site-specific, especially in the GI tract.

Conclusions

1. PA origin in this non-outbreak setting was mainly 'endogenous' and PA-types were generally patient- and site-specific, especially in the GI tract.
2. Colonization on admission was a significant risk factor for PA-related infection.
3. Detection of PA on surveillance cultures may serve as a good predictor of PA clinical infection and also of the infecting clone, while negative screening is a very good negative predictor for clinical infection.
4. VAP-related strains are better predicted by upper airways screening rather than rectal screening.