

## Background

- Invasive trichosporonosis is a life-threatening disease with mortality rates up to 80% despite antifungal treatment
- Increasing numbers of patients at risk lead to increasing prevalence of rare invasive fungal infections, including trichosporonosis<sup>1</sup>
- Effective treatment strategies are very limited
- Rarity of the disease and lack of joint efforts in investigating trichosporonosis limit comprehensive data evaluation

## Goals

- To overcome the lack of knowledge
- To identify successful strategies to treat trichosporonosis
- To systematically investigate correlation of *in vitro* susceptibility testing with clinical outcome
- To determine useful *in vitro* susceptibility testing strategies

## Methods

- Web-based data capture of retrospectively collected patient data
- Quality control
- Isolate collection for identification, susceptibility testing, biobanking and exchange with TriReg collaborators

### Inclusion criteria

- Trichosporonosis documented by at least one of the following: Culture, histology, antigen detection, PCR-based detection of fungal DNA

### Exclusion criteria

- Infection due to other fungal pathogens (mixed infection is allowed)
- Colonisation or non-invasive infection with *Trichosporon* sp.

## Registration/ Password Acquisition

CLINICALSURVEYS.NET

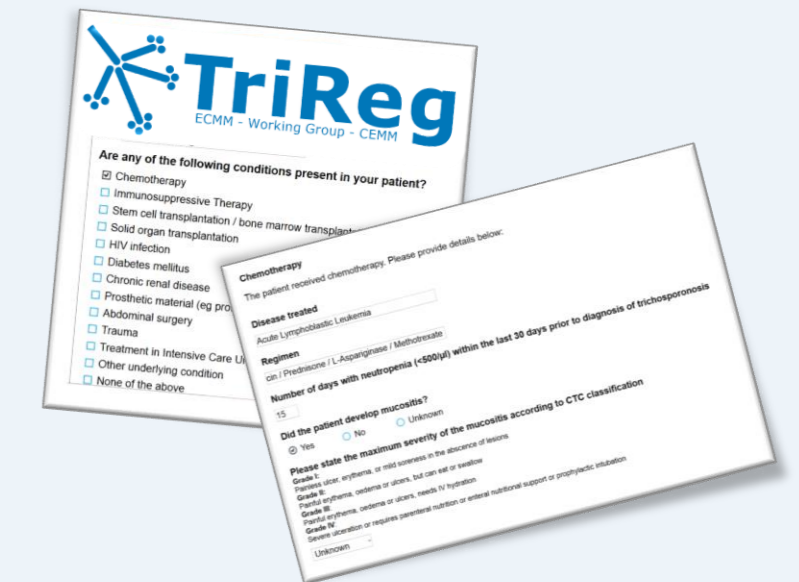
## Add a new patient

## Start the survey

- ✓ Demographics
- ✓ Risk Factors
- ✓ Diagnostic Procedures
- ✓ Clinical Signs and Symptoms
- ✓ Site of Infection
- ✓ Mycological Evidence
- ✓ Treatment
- ✓ Outcome

## Quality control

Medical documentation and infectious disease specialists



## ECMM central lab

Isolate collection for diagnostics, *in vitro* susceptibility testing and biobanking  
Please send isolate to:  
University Hospital Cologne  
Clinical Trial Center – Infectious Diseases  
c/o Susanna Proske  
Herderstrasse 52-54 – 50678 Cologne – Germany

Figure 1. Project overview

## Results

- 33 Trichosporonosis cases diagnosed between 2003 and 2014 documented in 14 countries
- Female (36%)
- Species: *T. asahii* (n=19), *T. inkin* (n=1), *T. mycotoxinivorans* (n=1), *Trichosporon* sp. (n=12)
- All infections were documented by culture
- 5 patients had mixed infection with *A. fumigatus* or *Scedosporium apiospermum* (n=1), *Candida* sp. (n=2), *Cryptococcus* sp. (n=1) or *Fusarium* sp. (n=1)

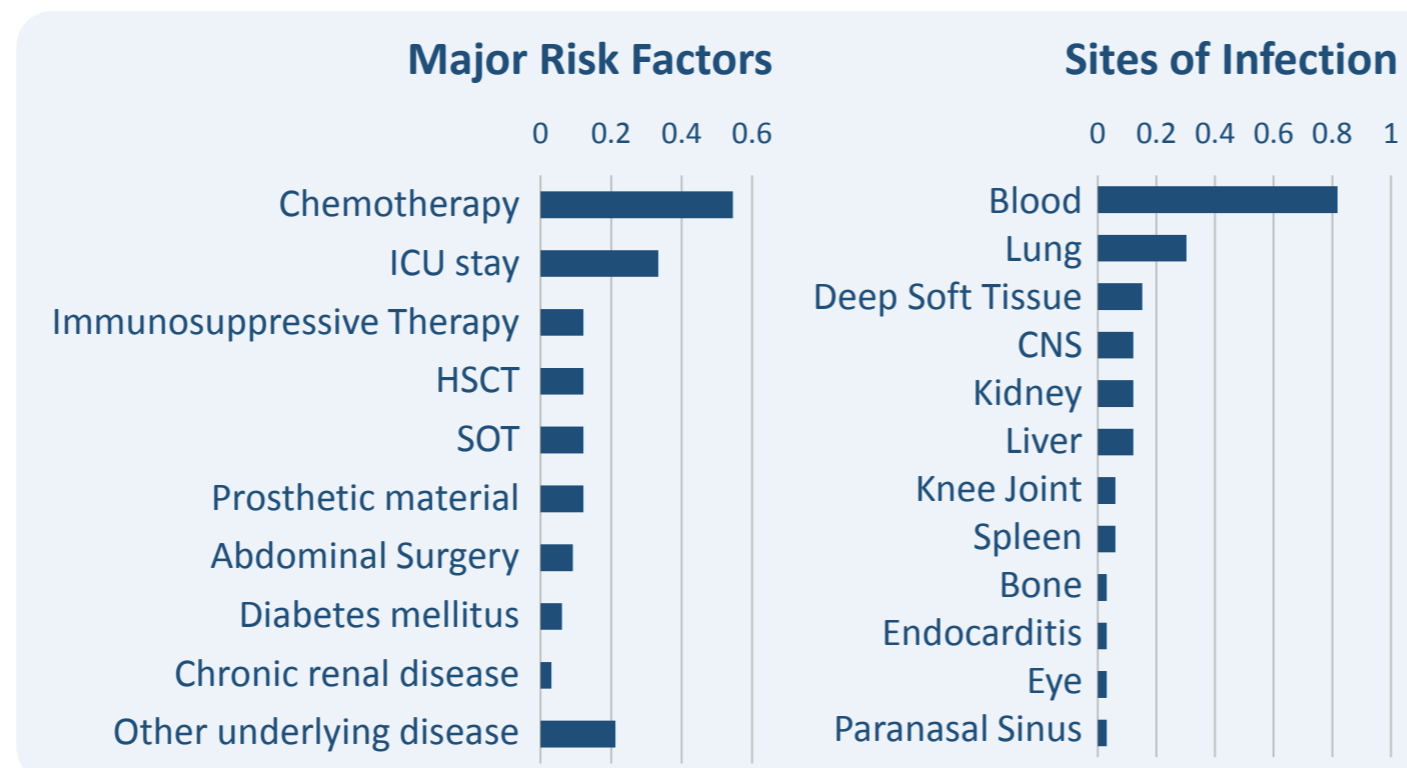


Figure 2. Risk factors and sites of infection. The major risk factor is chemotherapy. In most patients *Trichosporon* causes bloodstream infection with documented dissemination to at least one other organ in about 2/3 of these cases. CNS Central Nervous System, HSCT Hematopoietic Stem Cell Transplantation, ICU Intensive Care Unit, SOT Solid Organ Transplantation

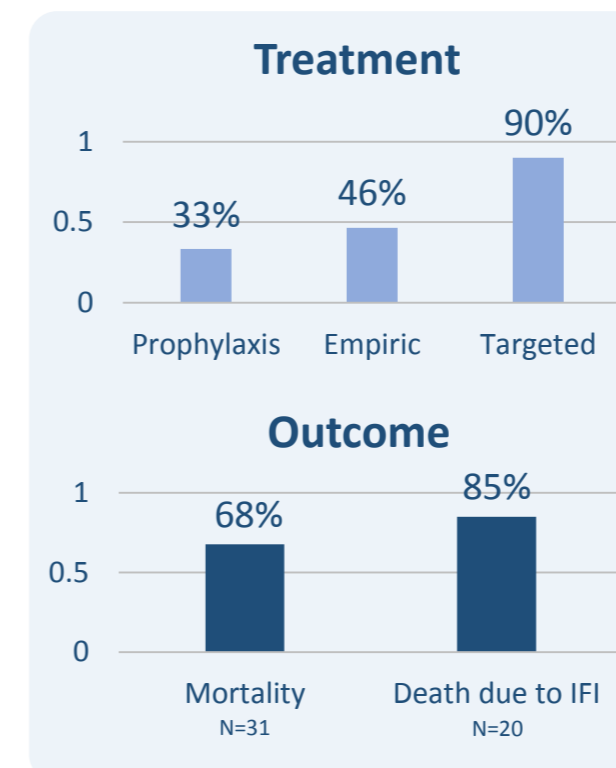


Figure 3. Treatment strategies and outcome

## Conclusions

Trichosporonosis is associated with systemic infections and poor outcome. TriReg offers an efficient platform to collect relevant clinical information on this rare disease that eventually may guide more effective therapy and lead to improved patient outcomes.

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Reference 1. Colombo, Padovan et al. 2011

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