



Adenovirus Diagnostics Working Group Discussion

From TAVI Forum 8 (Thomas Lion)



Management of adenovirus infection in patients after haematopoietic stem cell transplantation: state-of-the-art and real-life current approach

A position statement on behalf of the Infectious Diseases Working Party of the European Society of Blood and Marrow Transplantation

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Recommendations for anti-adenoviral treatment

- Tapering of immunosuppression, whenever possible
- Preemptive antiviral therapy (Cidofovir: 1mg/kg 3x per week)

in the presence of

Viremia >1000 HAdV copies/ μ l (All)
(in lymphopenic pts with circulating CD3+ T-cells < 25/ μ l)

HAdV positivity in stool with rapidly rising levels above the critical threshold (BII)

Human Adenoviruses: a Steadily Growing Family

Double-stranded DNA-Virus		Genome size: ~36 kb
7 species (subgenera): A-G		
Species	Types (serotyping/computational analysis)	
A	12, 18, 31, 61	
B	3, 7, 11, 14, 16, 21, 34, 35, 50, 55, 66, 68, 76-79, 106	
C	1, 2, 5, 6, 57, 89, 104, 108	
D	8-10, 13, 15, 17, 19, 20, 22-30, 32, 33, 36-39, 42-49, 51, 53, 54, 56, 58, 59, 60, 63, 64, 65, 67, 69-75, 80-88, 90-103, 105, 107, 109-113	
E	4	
F	40, 41	
G	52	

Most newly identified HAdV types resulted from homologous recombination events



Deghan S, et al. *Virology*. 2013;443:197-207; Lion T. *Clin Microbiol Rev*. 2014;27(3):441-462.97-207; Lion T. *Clin Microbiol Rev*. 2014;27(3):441-62

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- Recommendations from discussion
 - Harmonize DNA extraction
 - Controls for differences in efficacy of extraction
 - Consider digital droplet PCR
 - Use WHO internal standards
- Next steps
 - Look for/accumulate available data in pediatric and adult patients

Since TAVI Forum 8



- Small initial planning group
 - Thomas Lion, Christina Peters, Anita Lawitschka, Per Ljungman
 - Prepare short questionnaire to gauge Center interest in participating
 - Gather lists from EU pediatric and adult centers
 - Thank you Simone Cesare and Arnaud Dallisier
 - Distribute questionnaire
 - Repeat for non-EU centers