

# HUS – What's on the horizon?



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# H-Utopia-S

THE INDEPENDENT SUNDAY 05 OCTOBER 2014

## Early Identification

NEWS VIDEO PEOPLE VOICES SPORT TECH LIFE PROPERTY ARTS + ENTS TRAVEL

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News > Environment > Nature

### Hoofed and dangerous: Britain's killer cows



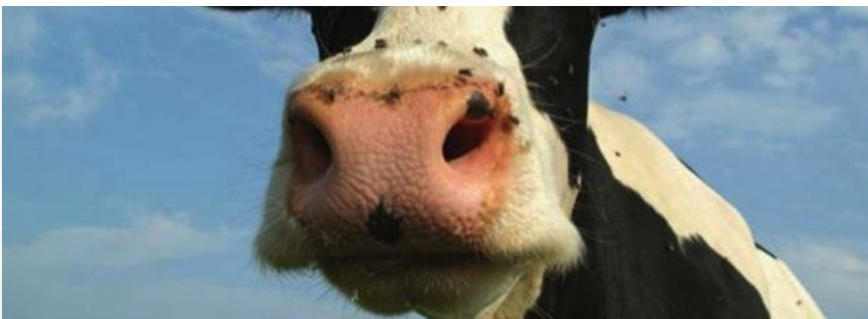
# H-Utopia-S

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## Early Identification

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## Effective Intervention

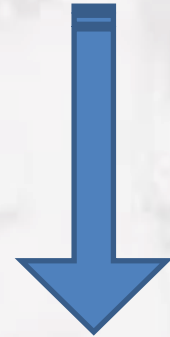


# H-Utopia-S

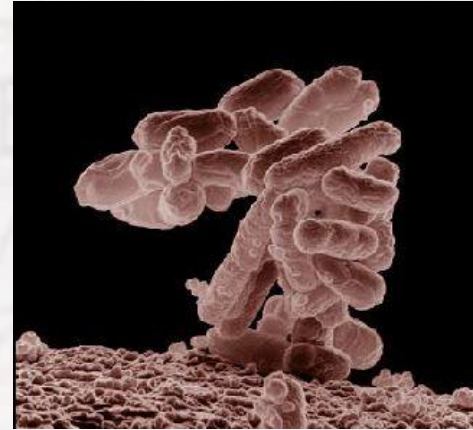
**Early Identification**

**Effective  
Intervention**

**End-result  
Improved**



# Early identification

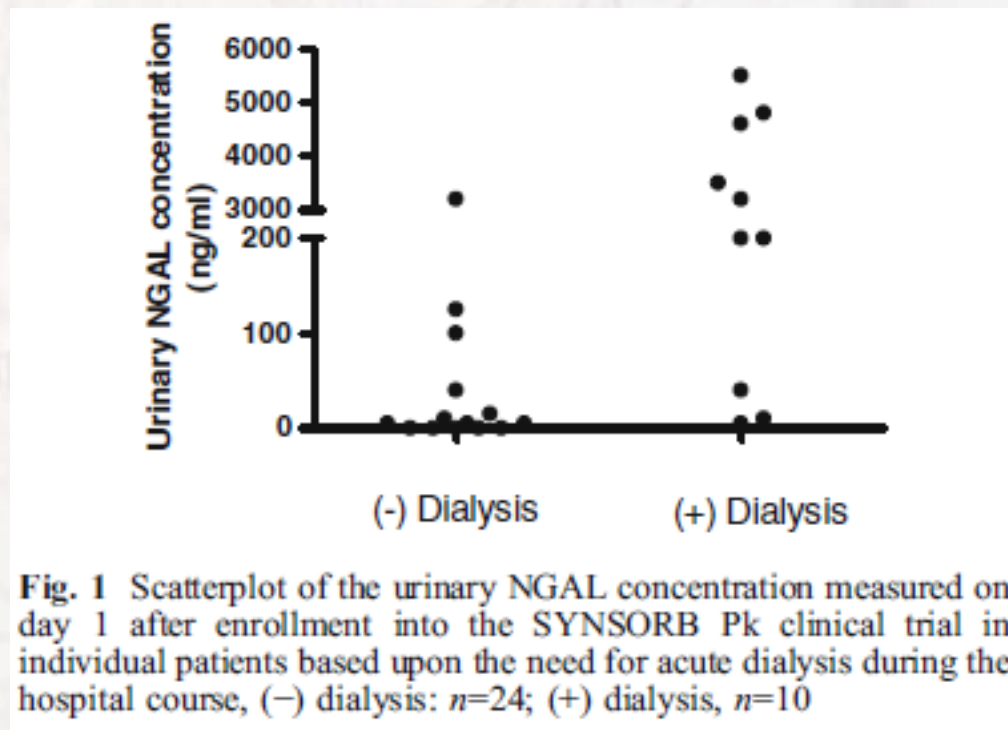


# Early identification

| Blood                                                                                                                                      | Faeces                                                                                                               | Urine                                                                            | Clinical                                                                                        |
|--------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| Full blood count and film<br>Urea & electrolytes<br>Liver function tests<br>Lactate dehydrogenase<br>C-Reactive protein<br>Clotting screen | Culture<br><br>(please ensure that the request form is marked with bloody diarrhoea as a clinical detail if present) | Microscopy<br><br>Near patient (dipstick) testing for Haematuria and Proteinuria | Temperature<br>Pulse<br>Respiratory rate<br>Blood pressure<br>Weight<br>Assessment of hydration |

# Early identification

- Urinary biomarkers



# Early identification

- Urinary biomarkers

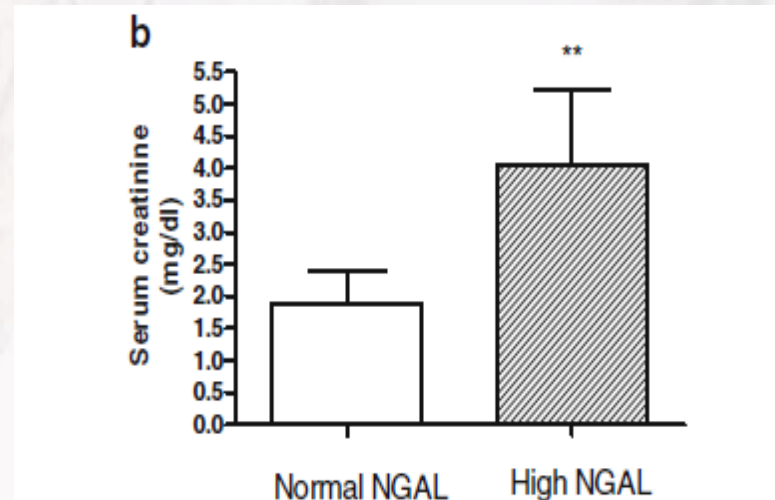
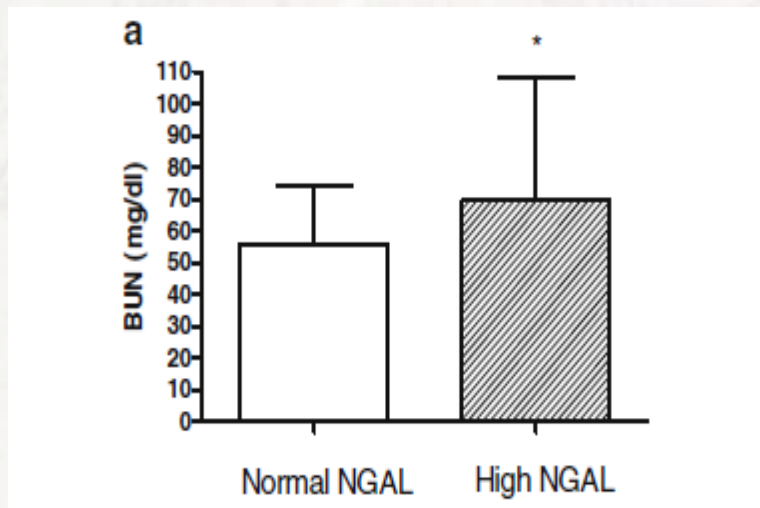


Fig. 2 a Peak BUN concentration during the course of hospitalization in children with D+HUS and normal versus high urinary NGAL excretion. Data are presented as mean $\pm$ SD. \*  $P=0.007$ . b Peak serum creatinine concentration during the course of hospitalization in children with D+HUS and normal versus high urinary NGAL excretion. Data are presented as mean $\pm$ SD. \*\*  $P=0.01$

# Effective Interventions?

- Avoidance of
  - Anti-motility agents
  - Opiate analgesia
  - NSAIDS
  - Antibiotics (probably)



**KEEP  
CALM  
AND  
Don't  
Do it**

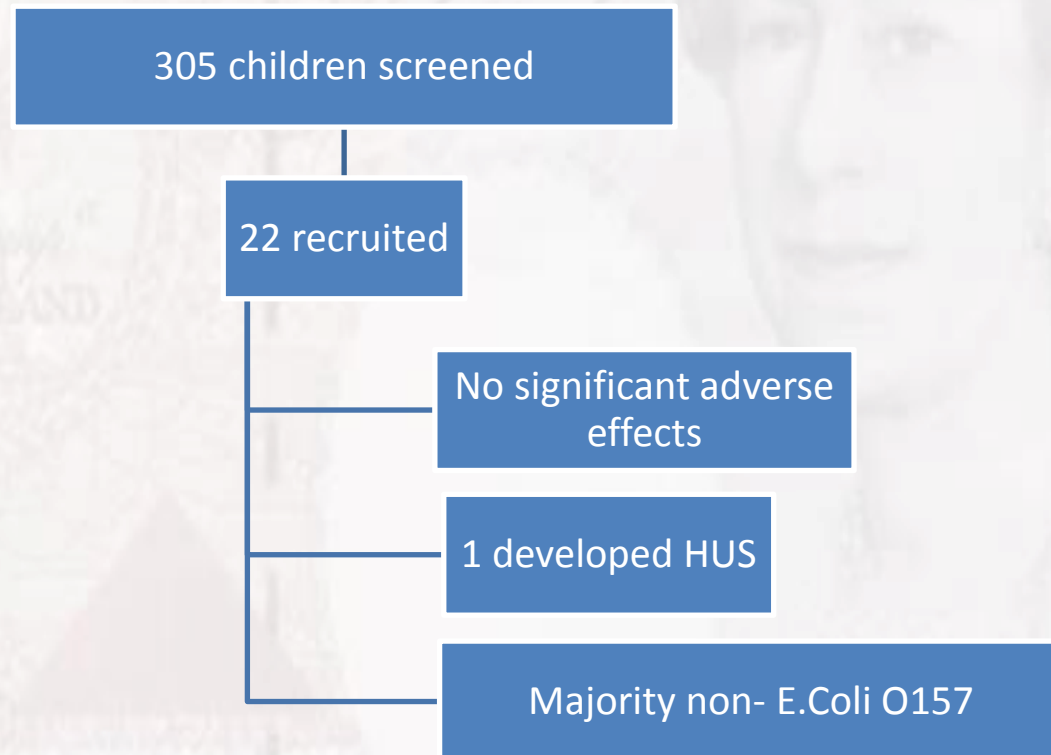
# Effective Interventions?

- Saline resuscitation



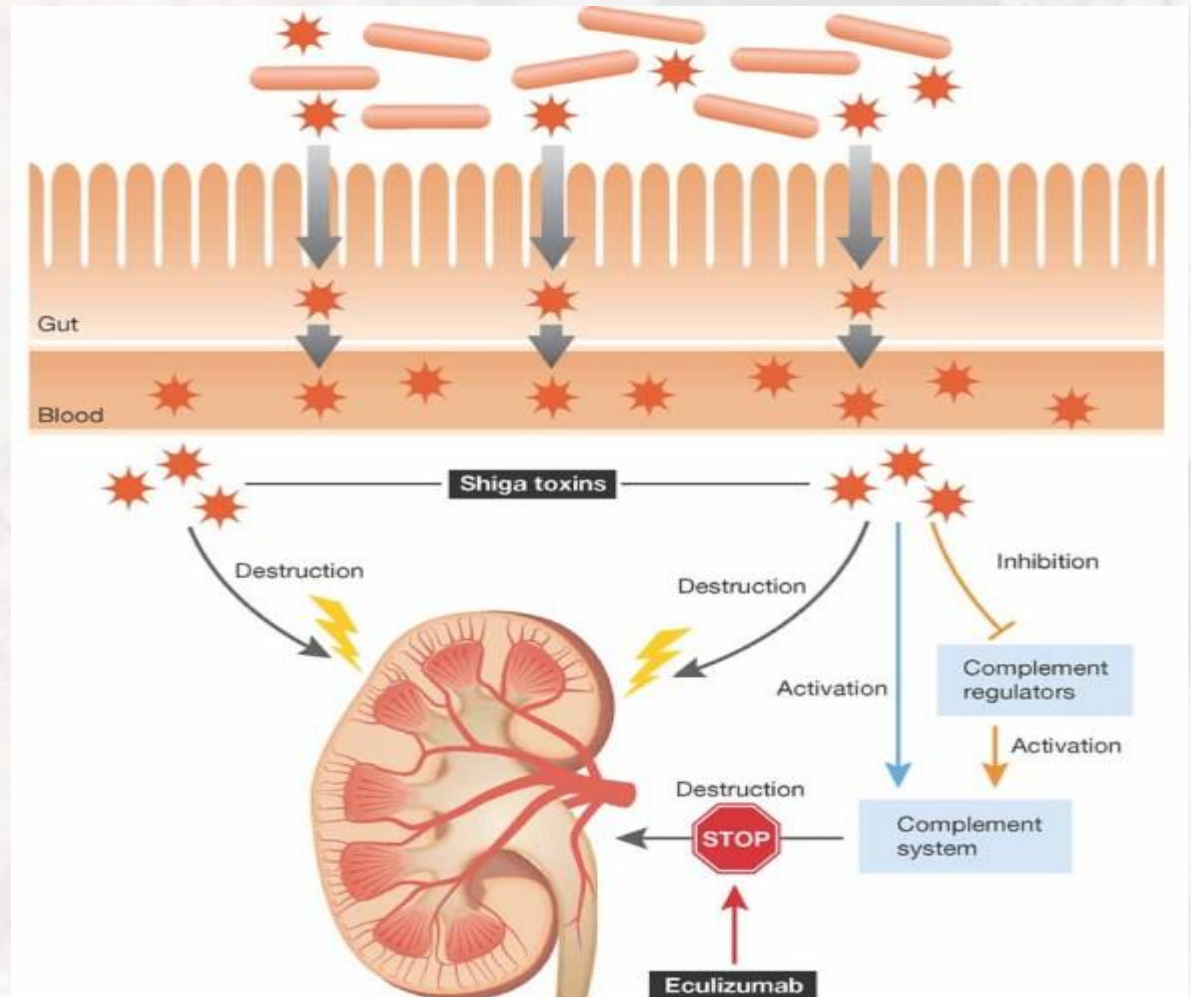
# Effective Interventions?

- SHIGATEC
  - Anti-shigatoxin monoclonal antibody



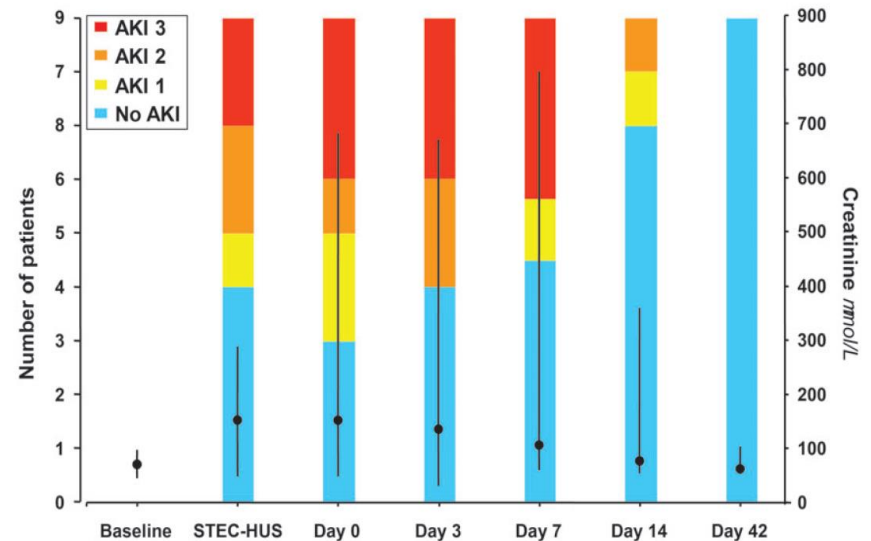
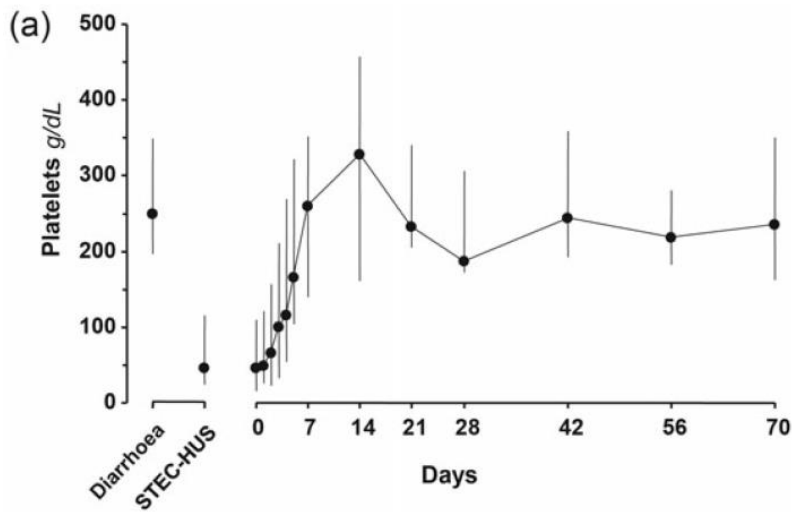
# Effective Interventions?

- Eculizumab



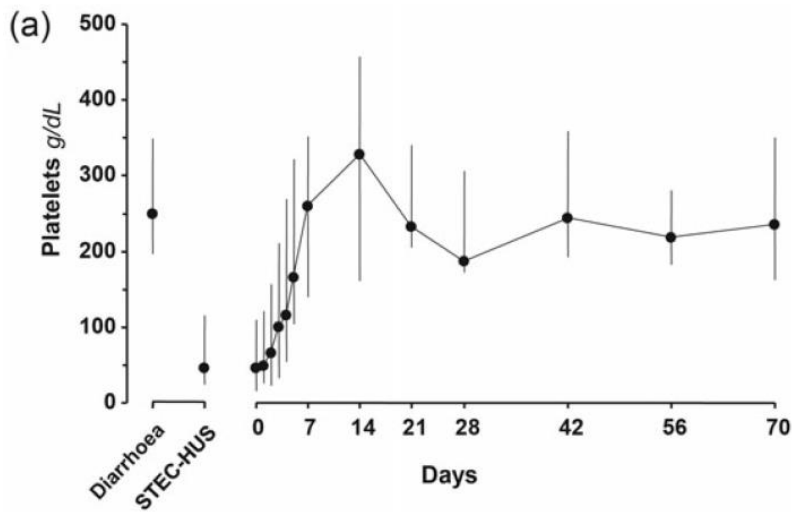
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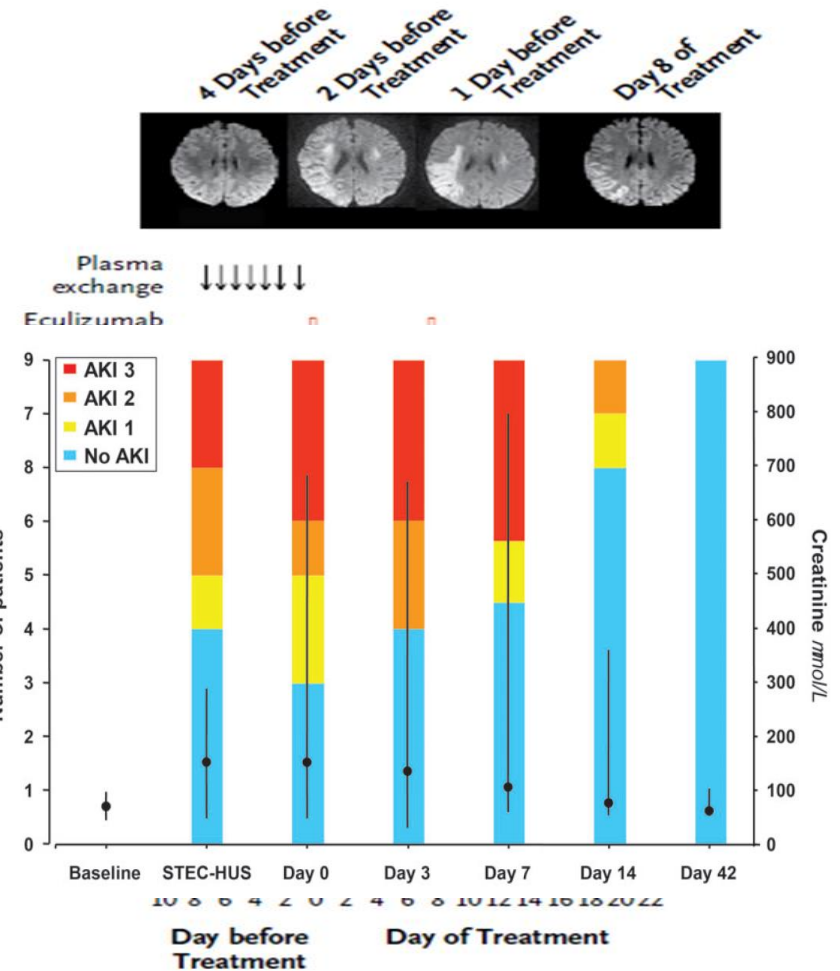


# Effective Interventions?

- Eculizumab

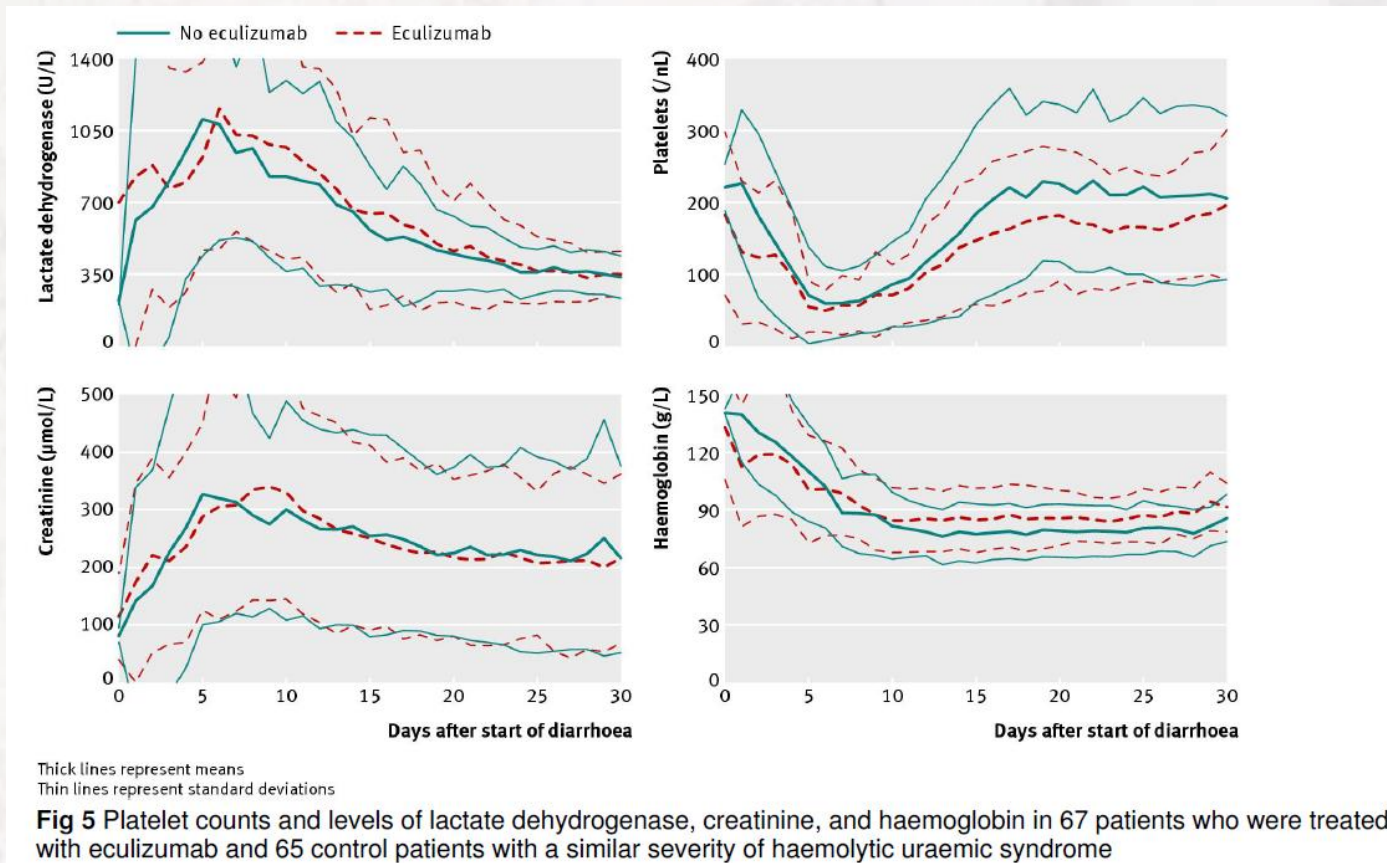


A Patient 1



# Effective Interventions?

- Eculizumab



# Effective Interventions?

- Eculizumab - £3150 + VAT per vial



# End-result improved?

- UK surveillance

|                            | 1985-88   | 1997-2001 |
|----------------------------|-----------|-----------|
| No of cases                | 288       | 413       |
| Death                      | 14(5.6%)  | 7(1.8%)   |
| Neurological complications | 51(19%)   | 52(13%)   |
| Renal recovery             | 209 (86%) | 342(88%)  |

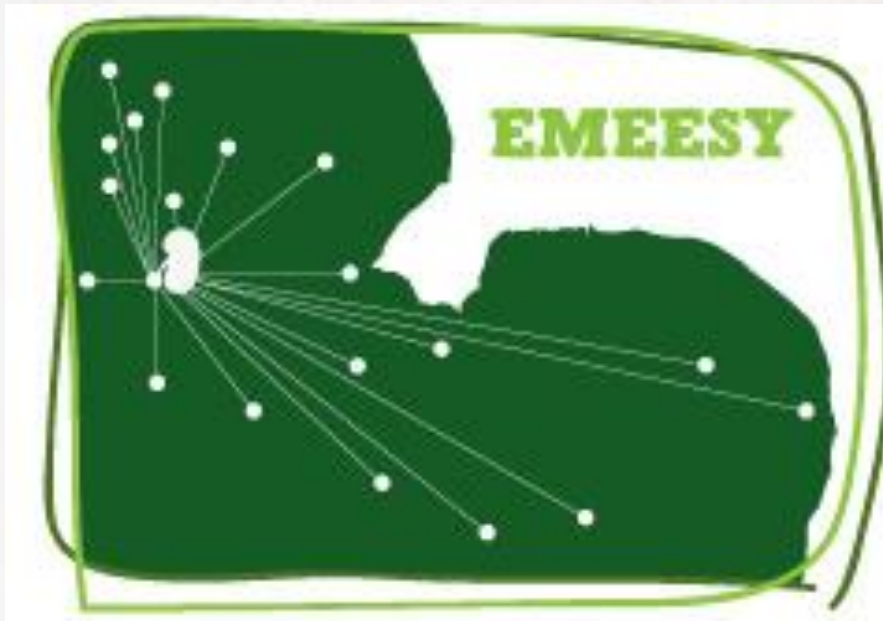
# Is H-Utopia-S on the horizon?

- ECUSTEC
  - Plan for trial
  - Eligibility
    - Bloody diarrhoea
    - Evidence of haemolysis
    - Low platelets
    - $\text{eGFR} < 50 \text{ ml/min/1.73m}^2$  or oligoanuria

# Is H-Utopia-S on the horizon?

- ECUSTEC
  - Double blinded randomised controlled trial of 2 doses eculizimab
  - Primary outcome
    - Disease severity score
  - Secondary outcomes
    - Urinary biomarker collection
    - Need for dialysis
    - Time on dialysis

# Is H-Utopia-S on the horizon?



- ECUSTEC meets EMEESY
  - Patient identifying centres
  - Transfer to Nottingham
  - Enter trial
  - Treatment as needed

# HUS – What's on the horizon

