

## Is an online automated clinical care pathway for people with genital chlamydia within an eSexual Health Clinic feasible and acceptable?

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on behalf of Workstream 4, eSTI<sup>2</sup> Consortium



## Background

- Reported diagnoses of chlamydia in England remain high <25 years
- UK health strategy supports self- and internet-based care
- eHealth could widen access but also health inequality – *The Digital Divide*

“.....if we are to embrace the potential for technology to shift power to patients, we need patients to be willing and able to harness that technology. Digital inclusion is as vital in healthcare as everywhere else - not least because some of the greatest impacts of new technology in health is with the most vulnerable patients.”

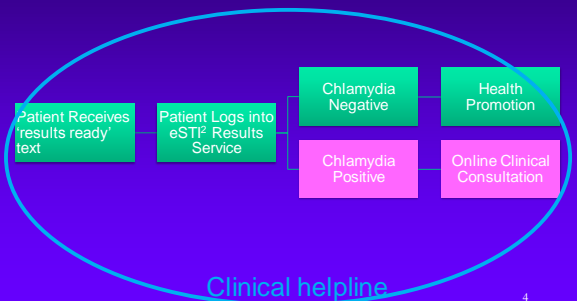
*Making healthcare more human-centred and not system-centred Rt Hon Jeremy Hunt, 15.7.15*

## Background

- Young people are avid users of technology (>80% UK under 25s own smartphone)
- Evidence from qualitative study in target population (Fuller SS et al. 2013) suggests smartphone enabled online STI care acceptable
- We developed UK's first automated, *online chlamydia management pathway* within an eSexual Health Clinic, compliant with regulatory, professional and prescribing guidance and public health data requirements (P12.02: Gibbs J et al)



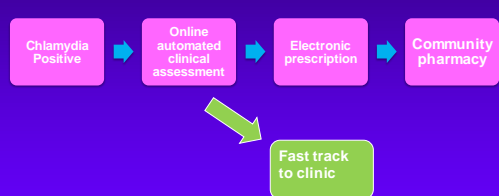
## Chlamydia Online Clinical Care Pathway



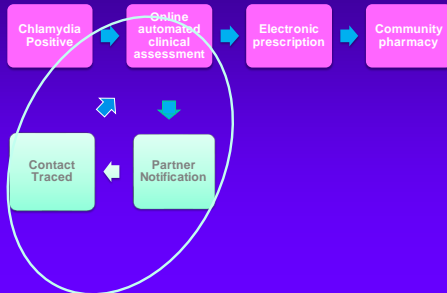
## Chlamydia positive online clinical care pathway



## Chlamydia positive online clinical care pathway



## eSTI<sup>1</sup> Chlamydia positive online clinical care pathway



## eSTI<sup>1</sup> online chlamydia management



## Aim

- to explore acceptability, feasibility & safety *online chlamydia management pathway* within an eSexual Health Clinic in people tested for genital chlamydia.

## Specific Objectives

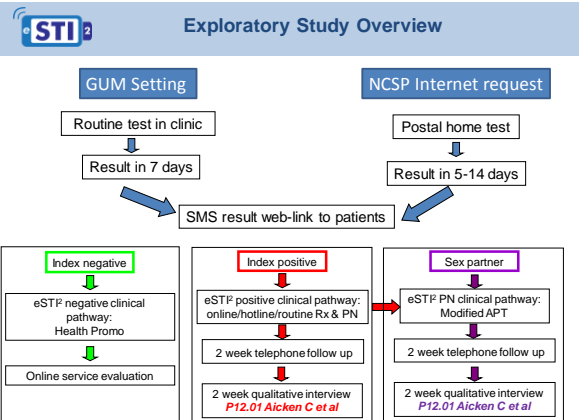
- demonstrate proof of concept (*NHS first*)
- determine preliminary evidence of effectiveness

## Methods 1

- Design:** non-randomised, exploratory study
- Participants:**
  - chlamydia positive untreated Genitourinary Medicine (GUM) clinic attenders
  - chlamydia positive untreated people tested through National Chlamydia Screening Programme (NCSP) online postal testing: 21.07.14 -13.3.15
- Exclusions:** under 16yrs; co-existing STIs, no mobile phone, extra-genital chlamydia

## Methods 2

- Intervention:** eligible people were sent an SMS message with a link to access their results from eSHC via a password protected web-app. Having consented online, they followed the automated *Chlamydia-OCCP*. Those who declined received routine care.
- Evaluation:** *treatment rate (primary outcome)*; time to-, method and safety of treatment; PN outcomes; engagement with clinical helpline, acceptability, costs.
- Analysis:** descriptive statistics analysed using Microsoft Excel and Stata v13



## Ascertainment of Outcomes

**Primary Outcome**, proportion of index patients treated:

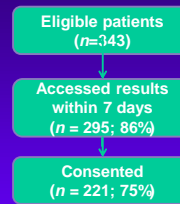
1. index collected pack from pharmacy
2. index reported treatment at 2 week follow up call
3. Clinical helpline logs
4. GUM Clinic & NCSP records

**Secondary outcomes**: time to treatment, method and safety of treatment, PN outcomes:

- online log
- 2 week follow up call

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## Flow of index patients through study

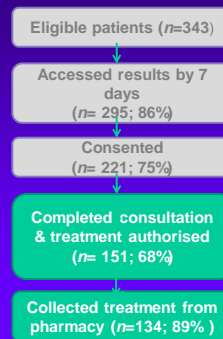


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## Participant characteristics

n=221	GUM (n=116)	NCSP (n=105)	P
Median age IQR	25 (23-29)	22 (20-23)	
Gender: F	74 (64%)	60 (57%)	Chi <sup>2</sup> = 3.28; P=0.07
Ethnicity	(n=104)	(n=95)	Chi <sup>2</sup> =30.4; P=0.000
White British	37 (36%)	67 (71%)	
White Other	29 (28%)	5 (5%)	
Black	17 (16%)	12 (13%)	
Asian/Mixed/Other	21 (20%)	10 (11%)	
Partners 6/12	(n=83)	(n=71)	Chi <sup>2</sup> =0.65; P=0.722
0-1	20 (24%)	21 (30%)	
2-5	54 (65%)	42 (59%)	
6+	9 (11%)	9 (11%)	
Previous Ct	25 (30%)	27 (38%)	Chi <sup>2</sup> =1.04; P=0.307

## Flow of index patients through study



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## 1<sup>ary</sup> Outcome: Proportion index patients treated

	Total (n=221)	GUM (n= 116)	NCSP (n=105)
Index treated	205 (93%)	112 (97%)	93 (89%)

### Where treated

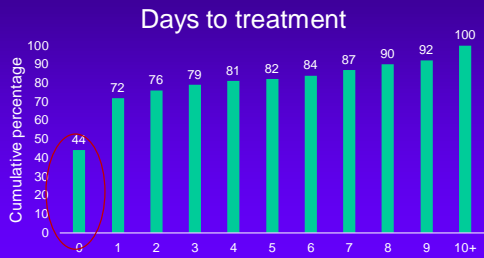


## Time to access results

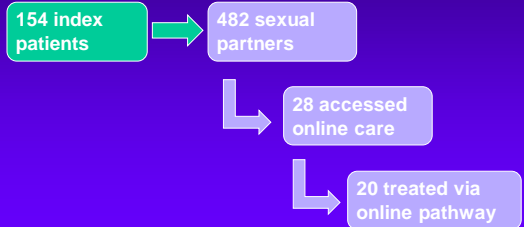
- same day: 96%
- end following day: 98%
- all (consented) accessed results within 5 days

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## Time to treatment participants Rx online



## Partner notification



## Participants who did not complete online consultation: reasons

	Total n=70	Men n= 14	Women n=56
Registration (post-consent)	7	2	5
Symptoms	51	9	42
Soya or peanut allergy	3	0	3
Completed consultation but didn't choose pharmacy	4	2	2
Other	5	1	4

## Participants who did not complete online consultation: outcomes

	Total (n=70)	All			
		Male (n=14)	Female (n=56)	GUM (n=34)	NCSP (n=36)
Known to be treated	57	10	47	30	27

## Participants who did not complete online consultation: outcomes

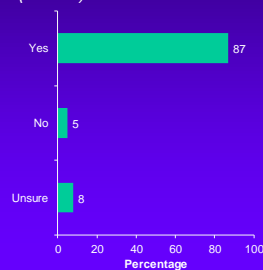
	Total (n=70)	All			
		Male (n=14)	Female (n=56)	GUM (n=34)	NCSP (n=36)
Known to be treated	57	10	47	30	27

### 13 patients with unknown treatment outcomes:

- 11 symptomatic
- 9 had contact with the clinical helpline
- 6 were actively directed into GUM or to GP

## User satisfaction

Would you recommend online clinic to your friends? (n=153)



Overall, how would you rate the online care you received (n=99)



## Summary

- ✓ Demonstrated possible to manage people with a positive chlamydia test effectively online - proof of concept
- ✓ Preliminary evidence of effectiveness – outcomes equivalent (or >/) to direct clinical contact
- ✓ High user acceptability

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## Conclusions

- Chlamydia online clinical care pathway offers a safe, rapid, effective, regulation-compliant & user friendly alternative to face to face care *alongside* specialist services
- Addresses some barriers to accessing care
- Implemented over wide geographical areas
- Speed of treatment (in context of NCSP 6 week guidance)
- Potential for completely remote testing, diagnosis and & management with STI home-tests

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## Conclusions

- NHS structural hurdles remain:



*"In conclusion, good progress has been made in the last twelve months, but the digital health agenda remains an ambition rather than a reality"* Digitising the NHS by 2018 - One Year On techUK report | March 2014

- Full scale trial, disparities & digital divide

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## Investigators



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**Conflict of Interests**  
The investigators have no conflicts of interest

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## Thank you



- Participants
- Clinic and NCSP staff: Barts Health Sexual Health Services; St George's University Hospitals Sexual Health Services; National Chlamydia Screening Programme areas: Bromley & Bexley, Greenwich, Lambeth, Southwark, Lewisham
- Community pharmacists
- Annette Wilkinson, Graham Hogan, The Doctors Laboratory
- Anthony Nettleship & team, Epigenesys
- Meroe Bleasdille, NCSP
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