Appendix S1

A mixed-methods evaluation of point-of-care hepatitis c virus RNA testing in a Scottish Prison.

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Table S1: Proportional hazards models stratified by test type (n=84).

	Variable	n (%)	HR (95%CI)	*p*
Model 1	Conventionally tested (ref)	63 (75.0)	…	
	GeneXpert tested	21 (25.0)	2.52 (1.40–4.52)	.002
	Variable	**n (%)**	***a*HR (95%CI)**	***p***
Model 2	Conventionally tested (ref)	63 (75.0)	…	
	GeneXpert tested	21 (25.0)	3.54 (1.41–4.59)	.002
	Age at test	…	1.03 (0.99–1.07)	.103

Abbreviations: PH, Proportional hazards; aHR, adjusted hazard ratio; CI, confidence interval.
Model 1 fit: X^2=8.23, p=0.004. Harrell's C: 0.63 (95% CI 0.56-0.70), p = <.0001.
Model 2 fit: X^2=10.86, p=0.004. Harrell's C: 0.63 (95% CI 0.55-0.72), p = <.0001.
Survival information both models: failures = 60; time at risk = 4,719 days.
Note: Unadjusted (model 1) and age-adjusted (model 2) proportional hazards models with cases grouped depending on which HCV test they received during the pilot (conventional phlebotomy/dried blood spot or point-of-care using the Xpert fingerstick assay).

Table S2: Focus group prompt questions.

Pre-implementation FG	Post implementation FG
What is the current pathway from the patient's perspective for getting a hepatitis c test in the prison?	So far, do you think the GeneXpert is 'working' in the prison?
Why, in your view, is the GeneXpert being brought into the prison?	What barriers/facilitators have you encountered using it?
How do you think using the GeneXpert will compare with current HCV testing methods?	Have any disadvantages to using the GeneXpert arisen since you started using it?
What do you think will be the advantages and disadvantages of the GeneXpert in the prison environment?	How have your patients responded to the offer of a test with the GeneXpert?
How do you expect the prison environment to affect the way you use the GeneXpert?	Has the pharmacy got a stock of HCV medication? This was perceived as a barrier to reducing waiting times when we last met.
Is there anything you like to use the device for, but expect you can or cannot do?	Have you had any issues with NHS virology since you started reporting results from the GeneXpert?
How do you feel about introducing the GeneXpert to the prison? [*prompt: autonomy; trust]*	Do you feel like you've had enough support and resources in implementing the new pathway?
How confident do you feel using it?	You mentioned you would like to take samples for GeneXpert tests in the halls when we last met, is this something that has been possible? [*why?*]
How will you decide to use the GeneXpert instead of another test, like a dried blood spot or oral swab? [*prompt: clinical history; patient preference*]	Last time you mentioned transferring patients to the health centre as a barrier to testing, is this still the case? Has the GeneXpert addressed that in any way?
Thinking of prisoners in HMP Perth: how do you think getting a hepatitis c test makes them feel using current methods?	You all felt confident using the device last time we spoke, is this still the case?
What do you think is their [prisoners'] preferred method of getting a test?	Has the GeneXpert changed your job for better or worse?

Do you think offering a test using the GeneXpert will make them react differently?	You previously expected the GeneXpert to speed up your process for getting people onto treatment, has that been the case?
What barriers do prisoners face in receiving a hepatitis c test in the prison?	Are you primarily using it as a diagnostic tool, or to monitor treatment response? [*why?*]
Will the GeneXpert help to get around any of those?	Have you been starting people on treatment with just the result from the GeneXpert?
How will you encourage more prisoners to take a test, will the GeneXpert play a role?	Have you had any development in testing your OST population?
Do you think the current system will be improved with the GeneXpert, or will it raise more problems than it solves?	Is there anything we haven't discussed that you'd like to raise before we finish up?
Have you seen or heard of any other places using the GeneXpert for hepatitis c testing?	
Do you think the prison health centre is open to changing processes?	
What strategies have you designed for implementing the GeneXpert?	
Have you needed to work with people outside your usual team? [*prompt: SPS staff*]	
What will be your measure of success or failure of the GeneXpert in the prison?	
Do you plan to change any other aspects of prisoner HCV care at the same time as introducing the GeneXpert? [*prompt: medication; prescribing*]	
Is there anything we haven't discussed that you'd like to raise before we finish up?	

Abbreviations: FG, focus group; HCV, hepatitis c virus; HMP, His Majesty's Prison; SPS, Scottish Prison Service.
Note: Not all questions would have been asked, these were simply potential prompts to encourage reflection and thought, and facilitate discussion.

Table S3: Individual Interview prompt questions (leadership/clinical staff).
What are your thoughts about why the GeneXpert is being implemented by the blood-borne virus service in HMP Perth?
How effective do you think the GeneXpert can be in HMP Perth? [*follow: why?*]
What (dis)advantages do you think the GeneXpert has compared to existing hepatis c testing in HMP Perth? [*follow: What are the relative (dis)advantages?]*
What issues do you think prisoners face to participating in hepatitis c testing with the GeneXpert?
What issues do you think staff face to delivering hepatitis c testing with the GeneXpert?
To what extent does implementing the GeneXpert fit with the wider goals of the blood-borne virus service? [*follow: How do these goals affect implementation?*]
To what extent were the needs and preferences of prisoners considered when deciding to implement the GeneXpert?
How do you think the prison infrastructure affects use of the GeneXpert? [*prompt: Physical layout, size, staff, or prison capacity*.]
What kind of policies or guidelines influenced the decision to use the GeneXpert in HMP Perth? [*follow: How did they influence the decision?*]
How do you think the culture of the blood-borne virus service/team influences implementation of the GeneXpert?
Who were the key influential individuals to get on board to implement this new device? [*follow: Was their involvement helpful, or a hindrance?*]
Is there anything you would like to discuss that we have not already covered?
Abbreviations: HMP, His Majesty's Prison

Table S4: Individual Interview prompt questions (laboratory staff).

How does supporting the GeneXpert compare to existing hepatitis c testing supported by virology?
[*follow: Advantages disadvantages?*]

Can you describe any workflow changes made to support GeneXpert testing?
[*follow: What were they? Were these easy to do?*]

Can you describe any infrastructure changes that had to be made in virology to support the GeneXpert platform?
[*follow: Costly? Challenges?*]

How well do you think the GeneXpert testing method integrates with the wider Virology services?
[*follow: Why?*]

How well do you think Virology's support of the GeneXpert meet the needs of the clinical teams using it?
[*follow: Why?*]

What is the general feeling in Virology towards supporting this new testing method?
[*follow: How did this influence support for GeneXpert testing?*]

How does HCV GeneXpert testing fit with existing processes in Virology?

How confident do you feel personally in your ability to support testing for HCV using the GeneXpert?

What do you think about the test result notification process for the GeneXpert?

Did Virology produce any SOPs or guidance to support GeneXpert testing?
[*follow: If yes, describe. Easy to understand/adhere to?*]

How do you and your colleagues communicate with the clinical staff doing the testing with the GeneXpert?
[*follow: Pros/Cons?*]

Is there anything you would like to discuss that we have not already covered?

Abbreviations: HCV, hepatitis c virus.

Table S5: Individual Interview prompt questions (leadership/commissioning staff).
What are your thoughts about the GeneXpert and its implementation in HMP Perth?
Theoretically, what (dis)advantages do you think the GeneXpert offers compared to standard testing in the prison?
How does implementing the GeneXpert in the prison fit with wider MCN policy and goals?
What barriers do you think prisoners face in getting tested with the GeneXpert in HMP Perth?
What facilitators do you think the prison creates in testing prisoners with the GeneXpert?
What are some of the administrative, logistical, or policy barriers and facilitators to implementing the GeneXpert in Tayside BBV network?
Theoretically, how do you think the infrastructure of the prison (layout etc.) could affect implementation of the GeneXpert?
To what extent would you say new projects/devices like this are embraced within the Tayside Managed Care Network?
Is there anything you would like to discuss that we have not already covered?
Abbreviations: HMP, His Majesty's Prison; MCN, managed care network; HCV, hepatitis c virus; BBV, blood-borne virus.

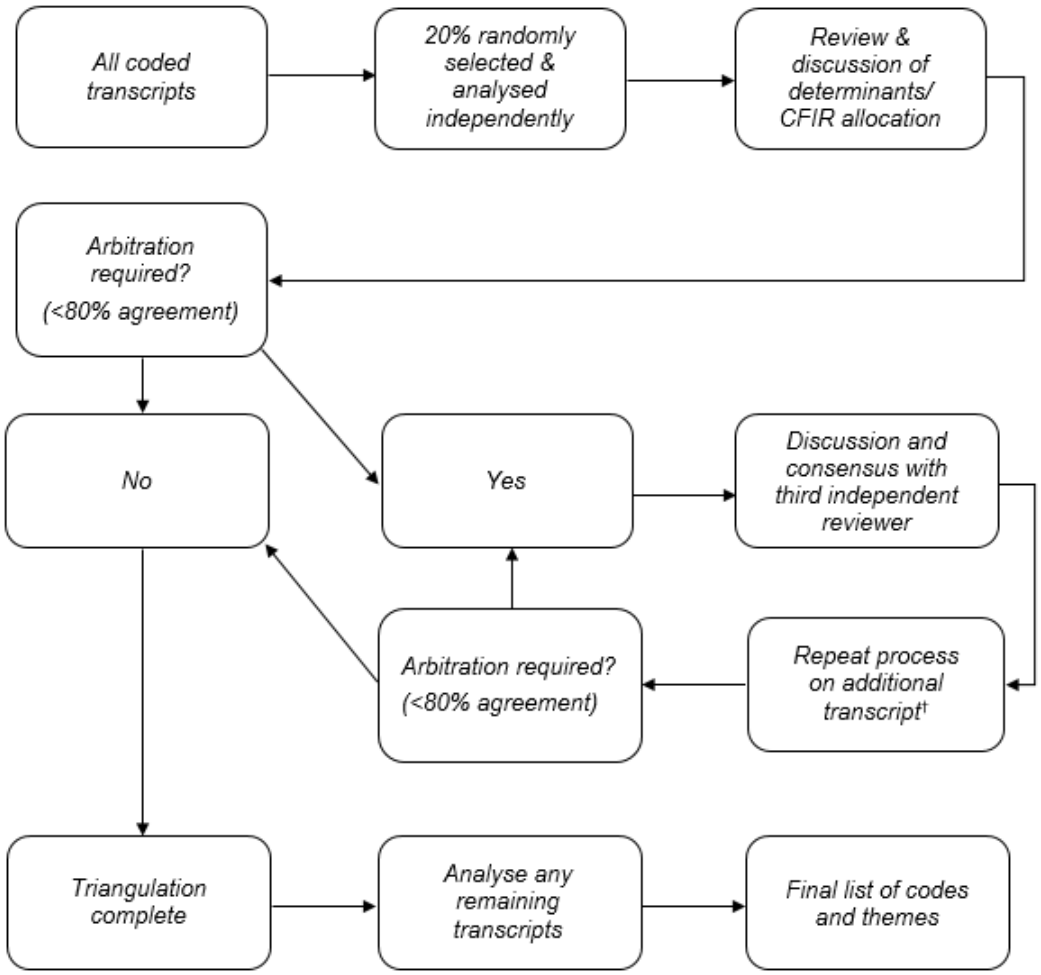

Figure S1: Pre-specified qualitative triangulation algorithm.
†If no transcripts remaining, triangulation is complete.

Table S6: Point-of-care test result reporting errors.

Issue encountered	n
Test not reported on ICE	16
ICE report states sample type oral fluid	7
Test reported on ICE, result not specified	2
ICE report specifies inaccurate result	1
ICE report specifies inaccurate test date	2
Total	28

Abbreviations: HMP, His Majesty's Prison service; ICE, integrated clinical environment.
Note: ICE is the local electronic health record system for recording clinical tests administered to patients.

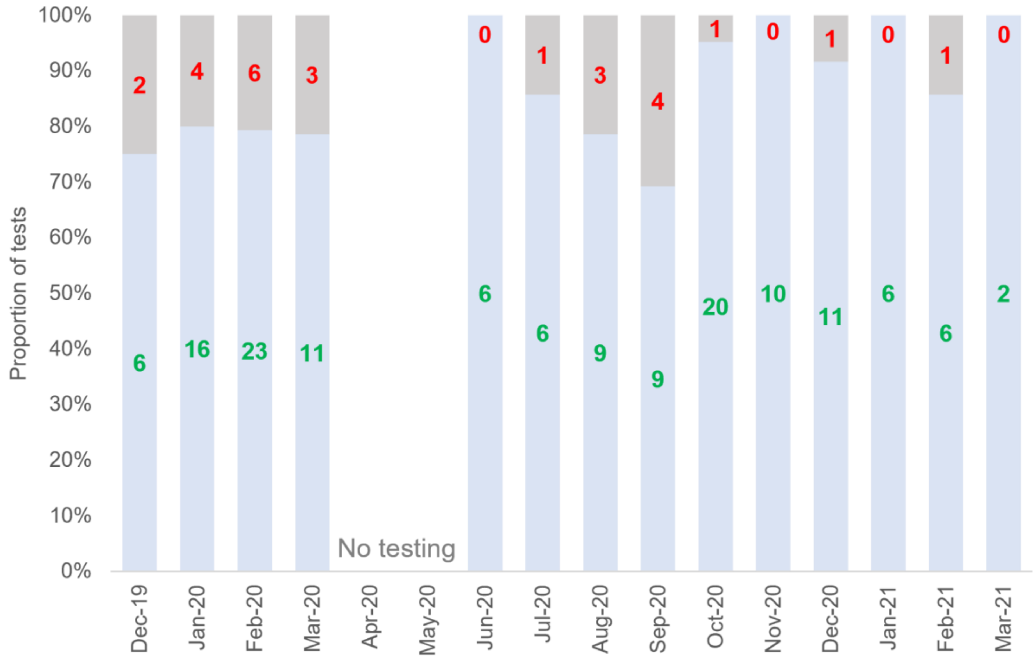

Figure S2: Number of completed (in green) and failed (in red) Xpert® Fingerstick RNA tests per month demonstrating a proportionate decrease over time.
Note: Failed tests include both ERROR (n=23), which were operator related, and INVALID (n=3), which were not operator related, results.

Figure S3: Number of Xpert® Fingerstick RNA test result reporting errors over time.