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The Sample Nobody Checks: Why Urine Collection Is Failing Women

With **Giovanna Forte**, Co-founder, Forte Medical

Every clinical trial I have worked on has collected urinalysis data. Almost nobody asks how the sample got into the pot. Giovanna Forte has spent twenty years asking, and the answers are not comfortable.

Giovanna co-founded Forte Medical, a UK medtech business built around a single, stubborn idea: if you want an accurate diagnosis from urine, you need an accurate urine sample. The device that carries that idea is Peezy Midstream, conceived by her brother, Dr Vincent Forte, a now-retired GP. It won the inaugural Medical Futures Innovation Award and, in 2009, an NHS Innovation Award signed by Andy Burnham, then Health Secretary. She has the certificate framed.

The guidelines say midstream. Practice says otherwise.

The origin story is simple. Five women in one GP surgery, one morning, all asked to catch a midstream sample in a universal container. All embarrassed. One of them, red-faced, told Vincent the system must have been designed by a man. He went home and made something.

Midstream collection is in every guideline, Giovanna points out, but it is barely covered in medical or nursing education, and women are rarely asked to do it properly. The first flush of urine washes skin flora into the specimen. That produces mixed growth, which produces a false positive on a dipstick, which produces an immediate broad-spectrum antibiotic.

> Blood and urine have diagnostic parity, and yet everybody's really careful about how blood is collected.
>
> Giovanna Forte, Forte Medical

She has seen samples arrive in washed-out spice jars. One maternity unit could not explain persistent glucose readings in a patient who seemed perfectly well, until they discovered she had been using a jam jar. A Peezy sample came back normal.

Treating women empirically

This is the part of the conversation that sticks. Under Pharmacy First, Giovanna explains, a pharmacist is paid £15 to consult on a UTI, and two verbal symptoms are enough for a woman to leave with an antibiotic. No culture. No analysis. Male guidance, by contrast, says to culture before prescribing. The reason given is that UTIs are more dangerous in men. "Of course they are," she says.

Her argument is partly about stewardship. She attributes around half of the global rise in antimicrobial resistance to urinary sources. Pregnant women, who give seven or eight urine screens per pregnancy, can be prescribed antibiotics on the strength of a contaminated sample. Her alternative is blunt: spend the same £15 on a culture of a clean first sample instead of on a prescription that may not be needed.

Up to 30%
contamination rate in urine samples, per Giovanna

4.5%
contamination for women using Peezy in the Pennine trial, against a 23.5% historic trust rate

50%
reduction in retests in a recent NHS trust trial (publication pending)

Figures as cited by Giovanna Forte in conversation.

Designed for the body it serves

The device is a polypropylene funnel shaped to fit the female perineum. The first stream goes out through one aperture, a sponge expands to direct the midstream into

a tube, and the excess leaves through a second outlet. The tube goes straight into the analyser, removing the two or three rounds of decanting that happen in many settings. It handles flows of 10 to 40 ml a second without overflowing, so hands stay clean.

Getting there took three iterations, a corn-starch polymer that was rejected because it risked leaching sugar into the sample, and a manufacturer that went into administration after COVID. Small refinements came from field use: a better handle for older hands, a curve so it does not scratch, and a hood over the tube after a trial showed that men's "inbuilt directional apparatus" was sending first stream into the sample.

Dignity runs through all of it. Giovanna's mother had dementia and recurrent UTIs. Asking someone in that position to produce a midstream sample, she says, is ridiculous and unkind. With Peezy she could collect a sample while her mother sat covered on a commode, chatting, without frightening her. A care-home nurse once told her she was being sued for inappropriate touching after an attempt to take a sample went wrong. Bad collection methods are unkind to everyone involved.

Incentives that reward getting it wrong

Why is something this obvious not everywhere? Partly because the system pays for repeat work. Giovanna recalls a large private lab telling her that cutting retests and false positives would take about half a million pounds off its bottom line. When she pointed out that its main client was the NHS, they said that was the NHS's problem.

She is more hopeful about managed service contracts, where labs receive a fixed budget and keep what they do not spend on rework. In the US, Medicaid has assigned a reimbursement code worth $48 to $63, based on reduced retesting, false positives and prescribing. Her UK primary-care cost model shows savings of up to 70% per patient when the first test is right. Private clinics remain a puzzle to her. One caller had paid £6,000 for a health check and still ended up with soiled hands.

Beyond UTIs

Precision collection matters more as urine diagnostics become more sophisticated. A conversation with Professor Hardev Pandha at the University of Surrey led to Peezy First Stream, which is ready for early-stage cancer testing. Peezy Midstream is due to be used next year in a pancreatic cancer study built on a urine test developed through

Barts Cancer Centre. Next in line are a twin-stream version for anti-doping tests and a flat-pack home test, due to be announced in January, that will collect, analyse and return a targeted antibiotic within 24 hours if one is needed.

For anyone in clinical data, the uncomfortable question is how much of the urinalysis reported into trials starts with a compromised sample. Nobody has measured it, which is rather the point.

Five years of no

Giovanna is unusually candid about money. COVID suspended point-of-care testing, and with it the business, which had reached 10,000 units a month in antenatal care. By the time testing resumed, the stock was too close to its expiry date to sell. Investors would not back a company with no turnover. She crowdfunded a net £209,000 and placed an order for 50,000 units, and the manufacturer went into administration a month later.

Everyone told her to walk away. She didn't. Pennine Healthcare now manufactures the device, Una Health distributes it, and NHS orders are coming back. She has put about £388,000 of her own money in over ten years. She is now raising roughly £330,000 to complete an EIS-eligible growth round, and she asked listeners directly for introductions.

QUICKFIRE ROUND

Advice to your younger self

Give yourself permission to be successful.

Top three qualities when building a team

Honesty, ambition and loyalty. Not necessarily in that order.

Favourite thing outside work

My children, my grandson and my husband. Depends how they're behaving.

Golden rule in life and business

Roll your sleeves up and get on with it.

That last answer sums her up. Twenty years in, with very little support, she is still treating a diagnostic sample like a diagnostic sample and asking everyone else to do the same.

Listen to the full conversation

Audio, video and transcript for every episode are at pharmaprescribed.com. To talk to Giovanna about investment or collaboration, contact Forte Medical.

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