

# Sustainable Block Testing Update

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James Wright ST4

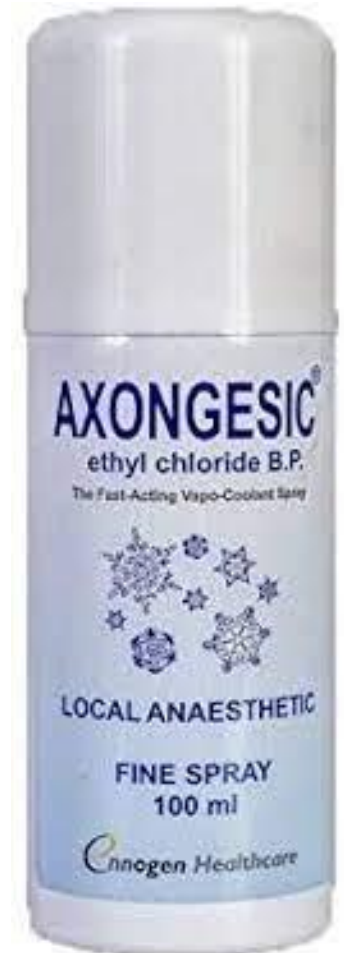
# What?

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- Ethyl chloride common standard for assessing block readiness for surgery

## Problems

- Expensive
- Environmental issues



# Why?

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## Environmental issues

- Ethyl chloride = chloroethane = GHG (some brands also contain CFCs)
- 100g of aluminium per can
  - Not currently being recycled
  - We used 826 cans last year
    - 553 kg CO<sub>2</sub> produced from can production alone
    - Equivalent CO<sub>2</sub> production to driving 4600km!
- Also plastic lid production
- Produced in Czech Republic & driven over (1300km journey)
- Potential harm to aquatic/wildlife when released



### Hazard Statement(s):

H220: Extremely flammable gas.  
H280: Contains gas under pressure; may explode if heated.  
H351: Suspected of causing cancer.  
H412: Harmful to aquatic life with long lasting effects.

# Why?

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## Cost issues

- £19.45 per can!
- We used 826 cans last year
- **£16,065** total spend last year
- Also cost of disposal



# What is the alternative?

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## “Cold Sticks”

- Reusable
- MHRA approved
- Clean with standard clinell wipe
- Small enough to be kept in anaesthetic fridges
- Stainless steel head + plastic handle
- Quoted 30 year life, if breaks fully recyclable
- Produced in Dorset
- Approx £60 per stick



# Where are we up to?

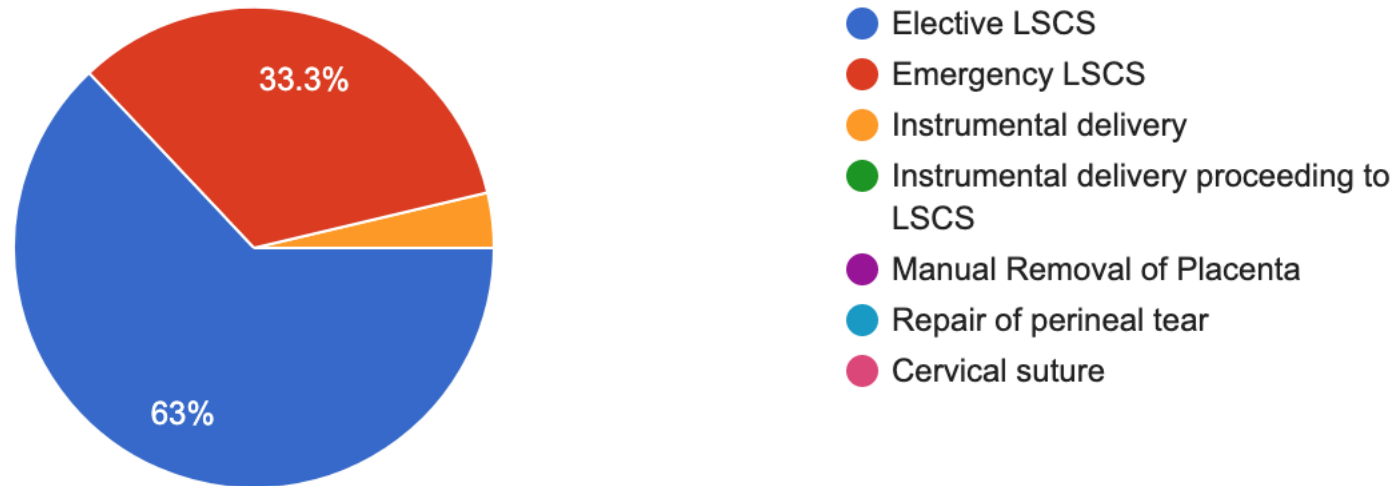
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- Introduced week 23<sup>rd</sup> May at RSCH & PRH
- 2 sticks on free trial
- St Richards/Worthing also about to start using
  
- Posters up to advertise
- Recommended to try with Cat IV LSCS initially
- QR code to feedback form
- In use for 9 weeks now

# The feedback

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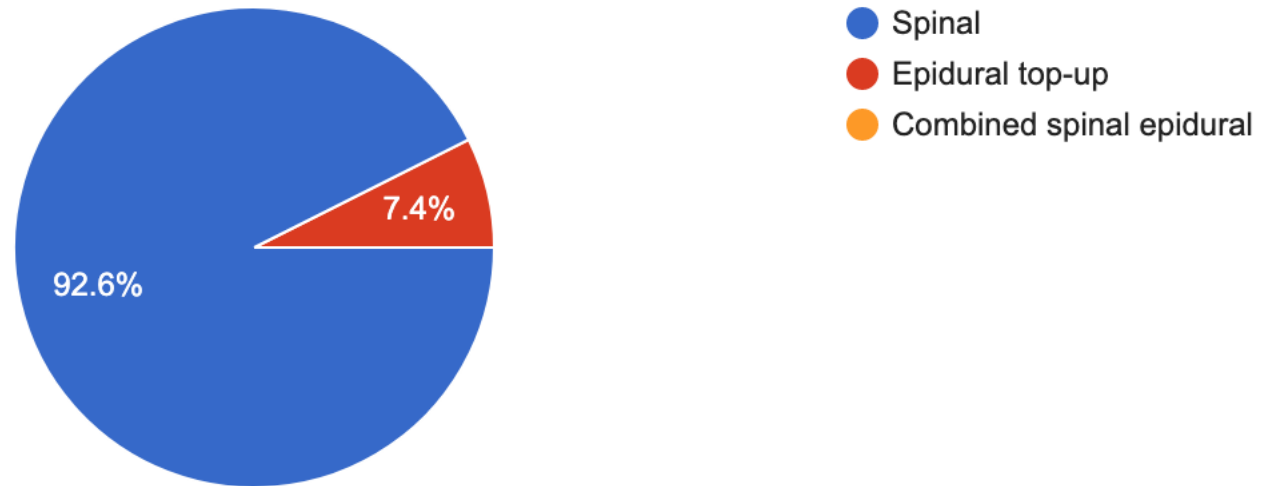
- 27 responses
- What procedure was being performed?



# The feedback

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- What was being tested?





# The feedback

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- Issues?
  - 3/27 said not clear enough block height on first use of stick
  - 10 went on to use ethyl chloride
    - 6 of these were because the stick was new to them/double check

# Did you have any problems?

none

No, I love them!!

No issues

They are not as cold as ethyl chloride and you can't isolate cold and touch adequately

It doesn't give as clear a response as Co spray and I would not use it if time critical. But is adequate for elective work.

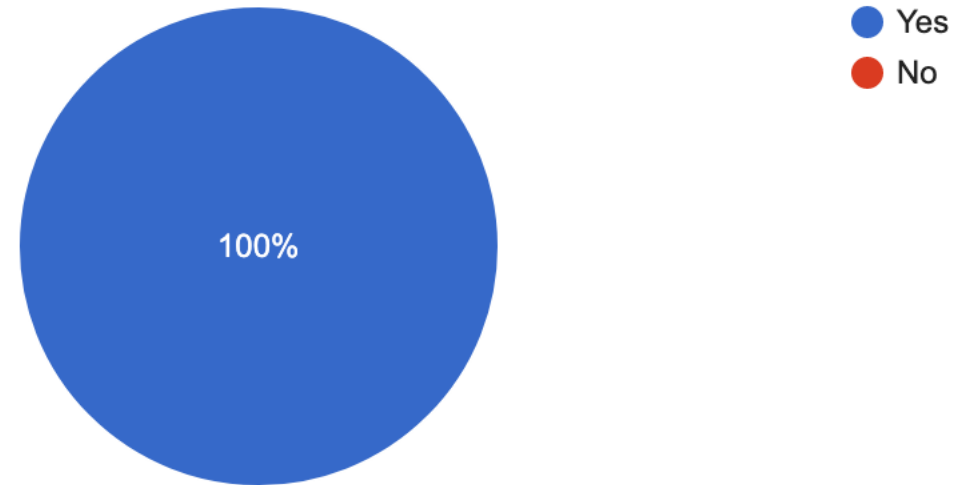
None, just a bit heavy!

It had gone missing

I've used it 3 times so far, I thought they were good in the patient population where communication is easy, but with any language barrier/extreme anxiety the reassurance of the cold spray was appreciated

I objectively find it difficult to move the stick up the abdomen smoothly. However the women have said that it is easier to identify level with stick than ethyl chloride spray, so happy to use.

Would you be happy to use the stick as your primary means of assessing block with ethyl chloride available as a back up?



# Extra comments

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It was great And worked better than expected

they are good

Some way to identify if cleaned. Maybe a green I'm clean sticker

They are as good as spray so makes absolute sense to use instead

It was good! The only thing I would say is that it's less intuitive to do a "continuous" block test with the stick. A bit weird to run it up someone's leg like we do with the ethyl chloride spray..but maybe I need more time to get used to it?

There are no use for highly strung women who are not calm enough to objectively consider cold v touch. With ethyl chloride you can elicit a squeal when the true cold level is reached. This gives an objective indication to the anaesthetist that the block is adequate so you can confidently reassure. It's also not good for testing the perineum. If you spray ethyl chloride on the labia and there is no response you can be sure you are ok for an episiotomy if required.

# Extra comments

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I think they are great. I haven't had an issue determining the block at all. If I did I could use the spray but hopefully this stick will significantly reduce the amount of spray needed

Worked well. Feels less cold thanks spray but when using it it was still easy to see anaesthesia and analgesia block levels

No issues. They work well

Happy to use so long as cold spray still available eg for cat 1 section

I like them, but need to keep spray for a bit as back up in case of a case that is difficult to tell. (I think the weight is tricky to manage)

They are great

# Extra comments

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I think they are great. I was a bit worried initially as they are not super cold - but it actually worked well. Added benefit of being able to assess light touch level simultaneously. My patient was an anaesthetist so I compared with ethyl chloride to reassure her but she also had good things to say!

It would be nice to have a bit of guidance on how best to use it - continuous line, separate dots? But think it's a good idea when we get used to it!

I clean and put the stick back in the fridge between tests on the same patient. I haven't checked for how long the stick would stay cold when outside the fridge.

Checked with ethyl chloride but otherwise happy

# What now?

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- Buy them?
  - Just in obs?
  - Vasc/trauma/SOTC?
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- Plan to review ethyl chloride use in time to see true cost/environmental benefits



Any questions or  
suggestions?

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Thank you