



# Dilapan-S<sup>®</sup>

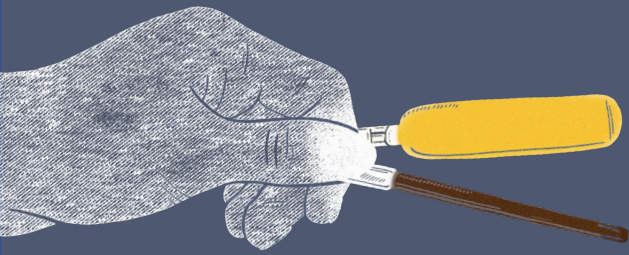
## Case Studies

Version 1.0



[www.AGHealth.co.uk](http://www.AGHealth.co.uk)

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# How to use this Document

This is an interactive document outlining data of over 1,800 patients from hospitals across the UK on a range of topics and outcomes. On the [contents page](#), you can click on the topic you want which will take you to the relevant page. On the [case study pages](#), you will find data from UK hospitals, links to RCTs, and media such as videos, podcasts, and interviews. Some case studies span over multiple pages.

Click to navigate case studies

- Outcomes with DILAPAN-S...**
  - 1st round success
  - Analgesia usage
  - Patient satisfaction
  - Hyperstimulation rates
  - Syntocinon usage
  - Vaginal delivery rates
  - VBACS
  - Time from ARM to delivery
  - Infection rates
- Hospitals using DILAPAN-S for...**
  - Outpatient IOL
  - Frontline IOL
  - Midwife-led IOL
  - Patient choice
- Hospitals that overcame the challenges of...**
  - Staff confidence
  - Culture change
  - Stakeholder resistance
  - Insertion procedure
  - Poor initial outcomes
- How does DILAPAN-S compare to...**
  - Propess
  - Balloon catheter

**Hospital location**  
1. Wales  
2. London

**Birth rate**  
1. 2500  
2. 4700

**Methods of IOL**  
1. Propess & Prostin  
2. Propess & Prostin

**Patient groups**  
1. VBACS & 2nd or 3rd line  
2. Frontline & Maternal choice

**Further reading**  
[COMRED](#)  
[SOLVE](#)  
[DILAFOL](#)  
[HOMECARE](#)

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### Analgesia Usage

**Case study 1**  
Analgesia required with DILAPAN-S

92%  
Yes No

This Hospital is currently offering DILAPAN-S to mostly VBAC IOLs and a few outliers depending on clinical judgement. Currently DILAPAN-S insertions are completed by doctors however midwives have shown a keen interest in learning this new skill. They have found excellent results from their DILAPAN-S insertions and therefore are hoping to offer this to a new set of patients in the future.  
6 Primips & 44 Multips

**Case study 2**  
Analgesia requirements

100  
80  
60  
40  
20  
0  
Propess DILAPAN-S

During this hospital's first trial, less than 5% of DILAPAN-S patients required analgesia.

*"85% of hormonal induction patients needed to use regular pain relief. Compared with this, DILAPAN-S had a massive drop in analgesia requirements. This improved our patient satisfaction to no end"*

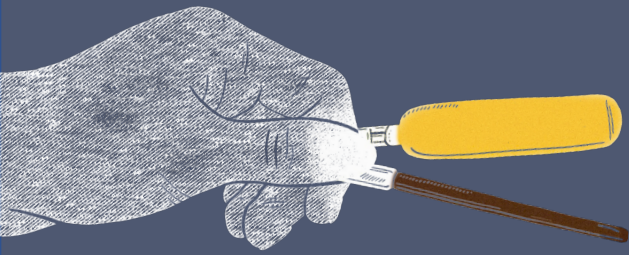
Katie MacDonald, Midwife  
150 Primips & 95 Multips

Dilapan-S

## Want to request data / contribute your own?

Is there anything you would like more data on? Or would you like to submit your own hospital's data to be anonymously included in this document? Click the button to send us a message.

[Submit or Request data](#)

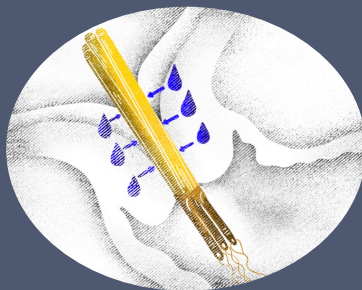


# What is DILAPAN-S?

A synthetic osmotic dilator made of Aquacryl<sup>®</sup> hydrogel that gently and predictably ripens the cervix.

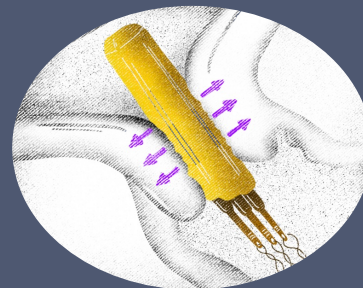
- Licensed for all IOLs and recommended by **NICE guidelines** for IOL
- Only contraindicated by a clinically active genital tract infection
- Preferable option for **outpatients**
- Unique mode of action:

## Biophysical



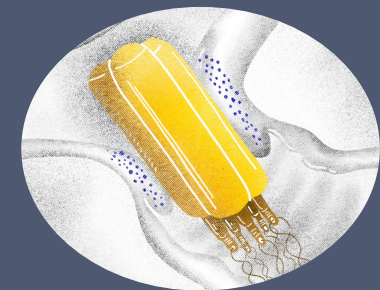
Osmotic dehydration of cervix →  
softening and change in  
consistency of tissue

## Mechanical

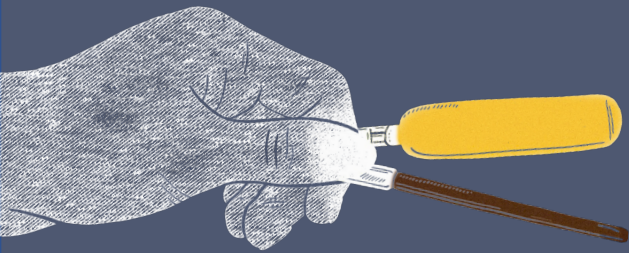


Expanding dilators exert radial pressure  
against the wall of the cervical canal →  
gradual dilatation of the cervix

## Physiological



Continuous pressure stimulates the  
release of endogenous prostaglandins →  
effacement of the cervix



# Why offer a mechanical method?

## DILAPAN-S Benefits



### Reduced Workload

Saves 2.4 hours per induction <sup>1</sup>  
No CTG or special care required



### Higher Patient Satisfaction

Superior to balloon and PGEs <sup>2,3,4</sup>  
More able to relax, sleep & move <sup>2,3,4</sup>



### Cost Effective

11% cost savings for outpatients <sup>5</sup>  
£200,000+ p/a savings for one unit <sup>6</sup>



### High Efficacy

80% 1<sup>st</sup> round success <sup>2</sup>  
Up to 80% VDR <sup>3</sup>



### Safety

Minimises risk of hyperstimulation <sup>7</sup>  
No serious adverse outcomes <sup>2,3,4</sup>

NICE IOL guideline 1.3.5  
recommends offering a mechanical  
method for:

- Reducing risk of hyperstimulation and subsequent adverse effect on the fetus
- Reducing risk of uterine rupture and EMCS associated with previous caesarean birth
- Patients with a bishop score of <6
- Improved maternal choice

[Learn more](#)

## Outcomes with DILAPAN-S...

- 1st round success
- Analgesia usage
- Vaginal delivery rates
- Hyperstimulation rates
- Syntocinon usage
- Patient satisfaction
- VBACS
- Time from ARM to delivery
- Infection rates

## How does DILAPAN-S compare to...


- Propess
- Balloon catheter

## Hospitals using DILAPAN-S for...

- Patient choice
- Frontline IOL
- Outpatient IOL
- Midwife-led IOL

## Hospitals that overcame the challenges of...

- Insertion procedure
- Poor initial outcomes
- Staff confidence
- Culture change
- Stakeholder resistance



Click to navigate case studies

Top tips from HCPs

Educational Resources

Order Information

Hospital location  
1. North West  
2. London

Birth rate  
1. 5000  
2. 6000

Other methods  
1. Prostaglandins and Balloon  
2. Propess & Prostin

Patient groups  
1. Frontline  
2. Frontline & Maternal choice

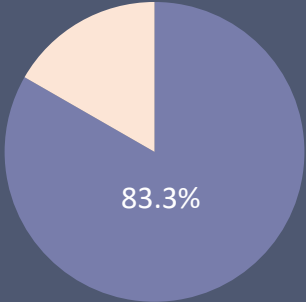
Further reading  
[COMRED](#)  
[SOLVE](#)  
[DILAFOL](#)  
[HOMECARE](#)

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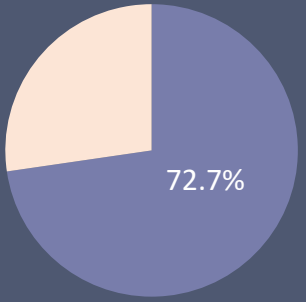
# 1<sup>st</sup> Round Success

## Case study 1

Multips 1<sup>st</sup> round



Primips 1<sup>st</sup> round



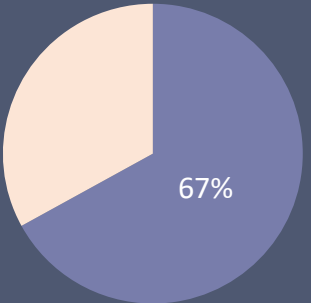
■ Successful ■ Unsuccessful    ■ Successful ■ Unsuccessful

This hospital had a **83%** vaginal delivery rate following 1<sup>st</sup> round success of DILAPAN-S. Patients remained ARMable for up to **62 hours** after removal of DILAPAN-S.

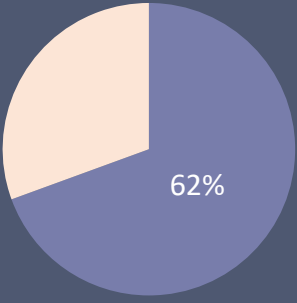
Combined 1<sup>st</sup> round success rate: 78%  
n = 23 (11 Primips & 12 Multips)

## Case study 2

Multips 1<sup>st</sup> round



Primips 1<sup>st</sup> round



■ Successful ■ Unsuccessful    ■ Successful ■ Unsuccessful

This hospital had a **92%** vaginal delivery rate following 1<sup>st</sup> round success of DILAPAN-S.

n = 22 (13 Primips & 9 Multips)

Hospital location

3. North West

4. South East

Birth rate

3. 1200

4. 3150

Other methods

3. Prostin

4. Propess & Prostin

Patient groups

3. Frontline

4. Frontline

Further reading

[COMRED](#)

[SOLVE](#)

[DILAFOL](#)

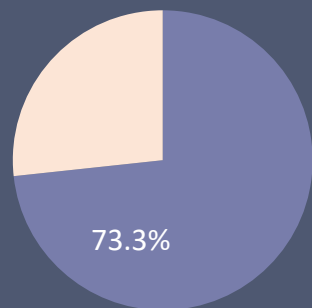
[HOMECARE](#)

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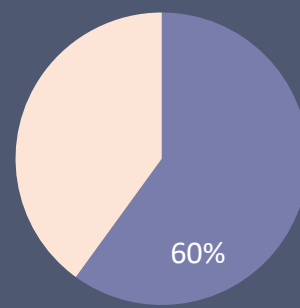
# 1<sup>st</sup> Round Success

## Case study 3

Multips 1<sup>st</sup> round



Primips 1<sup>st</sup> round



■ Successful ■ Unsuccessful

■ Successful ■ Unsuccessful

This hospital tasked a midwife with improving their IOL process. They trialed DILAPAN-S, achieved excellent results and decided to roll it out permanently. They are now in the process of expanding their IOLs to outpatients and continue to achieve excellent results. Another hospital within their trust has recently started using DILAPAN-S due to the positive feedback from this hospital.

Combined 1<sup>st</sup> round success rate: **67.6%**

n = 35 (15 Primips & 20 Multips)

## Case study 4

“DILAPAN-S only fails if you haven’t got it in properly. **If it’s in properly, they’re ARMable.** It’s really all about banging away at training, having the right support, getting the DILAPAN-S midwives coming in and supporting your staff. And once it’s done, it’s good!”

- Kate Conway, Matron



[Click to listen on Spotify](#)  
Skip ahead to these comments at 18:55

## Hospital location

1. Wales
2. London

## Birth rate

1. 2500
2. 6000

## Other methods

1. Propess & Prostin
2. Propess & Prostin

## Patient groups

1. VBACS & 2nd or 3rd line
2. Frontline & Maternal choice

## Further reading

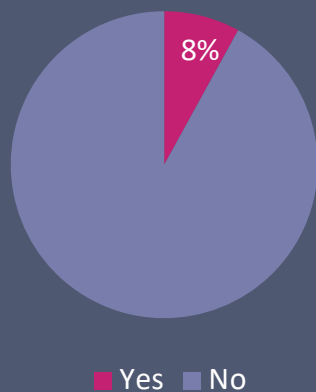
- [COMRED](#)
- [SOLVE](#)
- [DILAFOL](#)
- [HOMECARE](#)

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# Analgesia Usage

## Case study 1

Analgesia required with DILAPAN-S

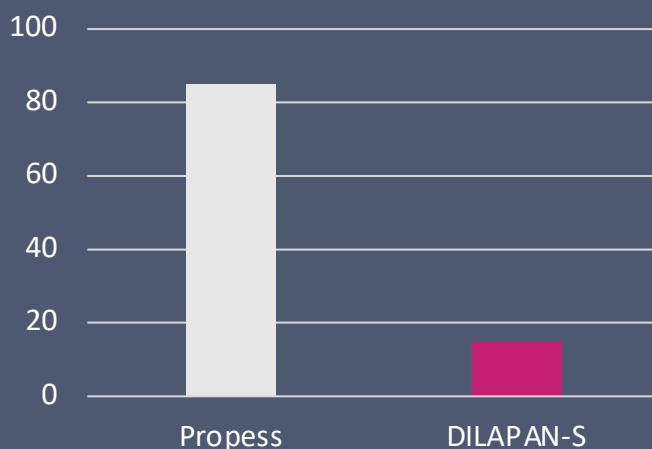


This hospital is currently offering DILAPAN-S to mostly VBAC IOLs and a few outliers depending on clinical judgement. Currently their DILAPAN-S insertions are completed by doctors, however midwives have shown a keen interest in learning this new skill. They have found excellent results with DILAPAN-S insertions and are hoping to offer this to a new set of patients in the future.

n = 50 (6 Primips & 44 Multips)

## Case study 2

Analgesia requirements



During this hospital's first trial, less than **5%** of DILAPAN-S patients required analgesia.

“85% of hormonal induction patients needed to use regular pain relief. Compared with this, DILAPAN-S had a massive drop in analgesia requirements. This improved our patient satisfaction to no end”

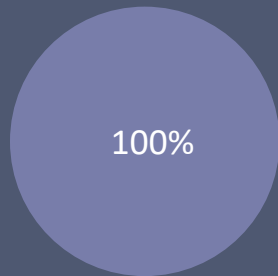
*Katie MacDonald, Midwife*

n = 245 (150 Primips & 95 Multips)



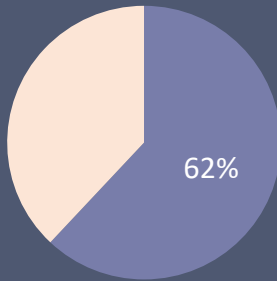
# Vaginal Delivery Rates

Multiples



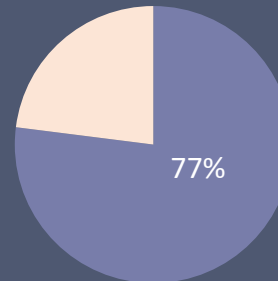
■ VD ■ LSCS

Primips



■ VD ■ LSCS

Overall



■ VD ■ LSCS

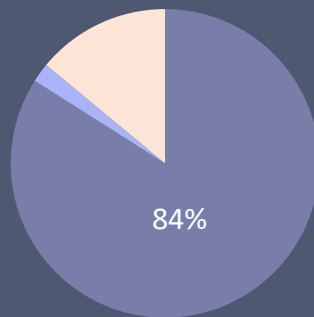
## Case study 1

This hospital was experiencing a low rate of successful VBACS using their original mechanical IOL method. After implementing DILAPAN-S, their VBACS rate improved by over 3x.

n = 22 (13 Primips & 9 Multiples)

## Case study 2

Overall delivery rates

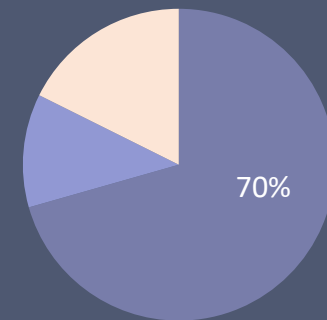


■ NVD ■ Forceps ■ LSCS

n = 50 (6 Primips & 44 Multiples)

## Case study 3

1<sup>st</sup> round successful – delivery rates



■ NVD ■ Kiwi ■ LSCS

n = 23 (11 Primips & 12 Multiples)

### Hospital location

1. London
2. Wales
3. North West

### Birth rate

1. 6000
2. 2500
3. 5000

### Other methods

1. Propess
2. Propess & Prostin
3. Prostaglandins and Balloon

### Patient groups

1. Frontline & Maternal choice
2. VBACS & 2nd or 3rd line
3. Frontline

### Further reading

[Benefits page](#)

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Hospital location  
Essex

Birth rate  
8800

Other methods  
Prostaglandins

Patient groups  
Frontline

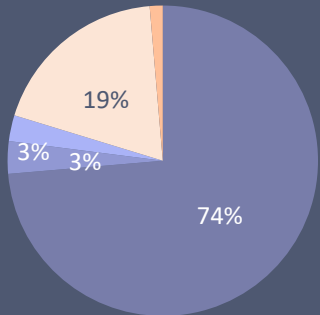
Further reading  
COMRED  
SOLVE  
DILAFOL

# Vaginal Delivery Rates

## Case study 4

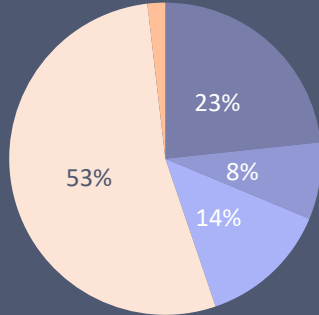
During this hospital's DILAPAN-S trial, **zero patients** experienced hyperstimulation or tachysystole. Overall, there were no adverse outcomes for DILAPAN-S patients.

Multiples overall 2022



■ NVD ■ Kiwi ■ Forceps ■ EMCS ■ ELCS

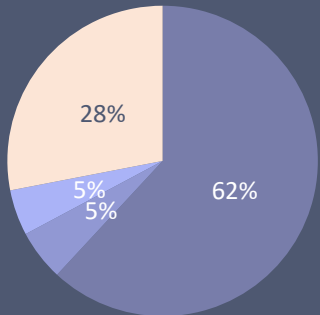
Primips overall 2022



■ NVD ■ Kiwi ■ Forceps ■ EMCS ■ ELCS

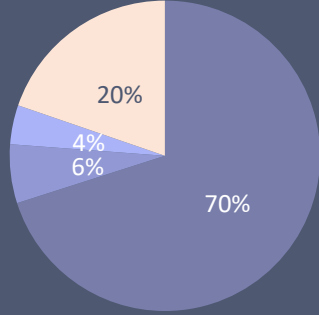
n = 1,409 (743 Primips & 666 Multiples)

SGA 2021/22



■ NVD ■ Kiwi ■ Forceps ■ EMCS

SGA 1<sup>st</sup> round 2021/22



■ NVD ■ Kiwi ■ Forceps ■ EMCS

n = 191 SGA

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Hospital location  
North West

Birth rate  
1200

Other methods  
Prostin

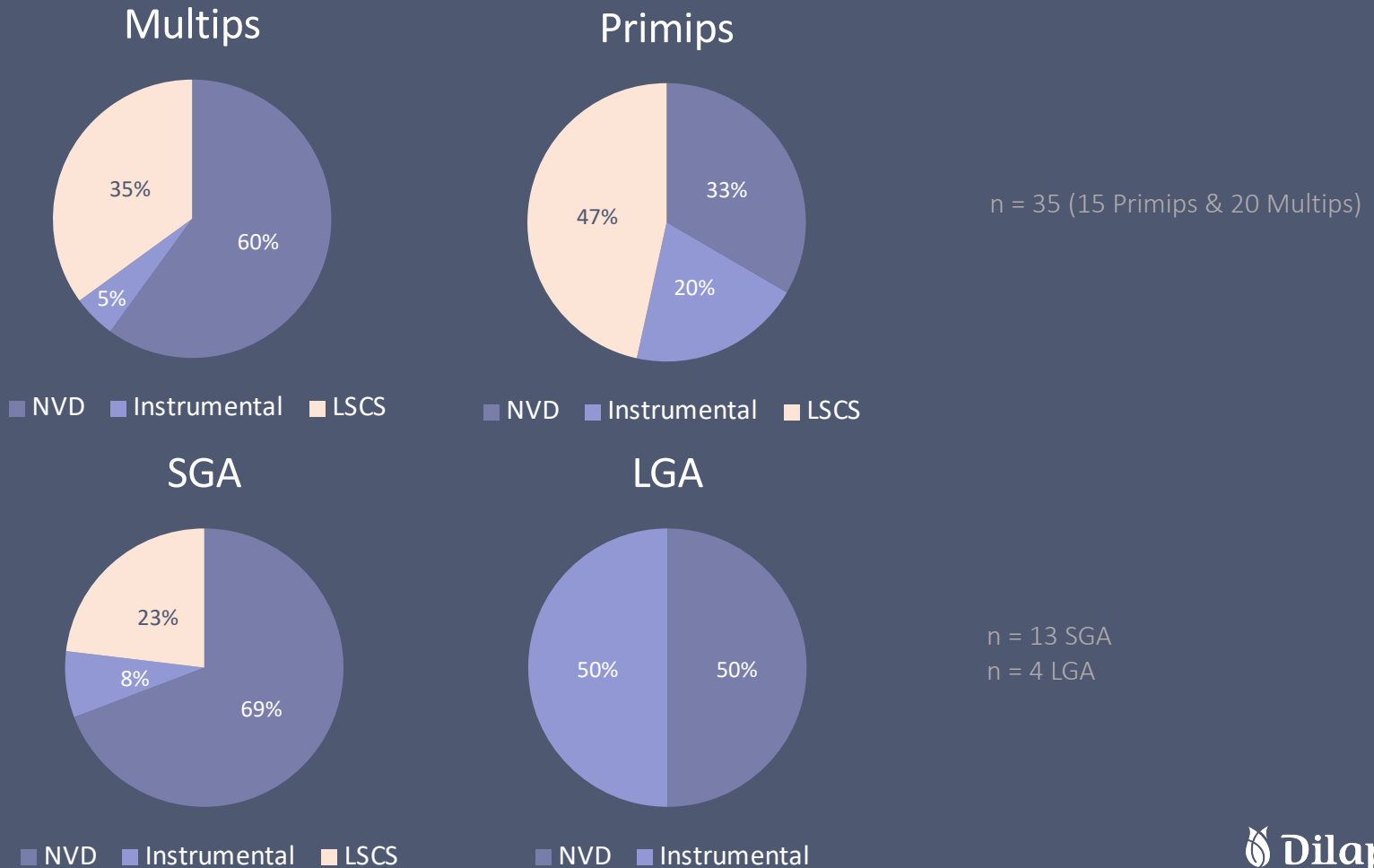
Patient groups  
Frontline

Further reading  
[COMRED](#)  
[SOLVE](#)  
[DILAFOL](#)

# Vaginal Delivery Rates

## Case study 5

This hospital tasked a midwife with improving their IOL process. They trialled DILAPAN-S, achieved excellent results and decided to roll it out permanently. They are now in the process of expanding their IOLs to outpatients and continue to achieve excellent results.



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## Hospital location

1. North West
2. Essex

## Birth rate

1. 5000
2. 8800

## Other methods

1. Prostaglandins and Balloon
2. Prostaglandins

## Patient groups

1. Frontline
2. Frontline and outpatients

## Further reading

[COMRED](#)

[SOLVE](#)

[Benefits page](#)

[Time & Cost Savings](#)

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# Hyperstimulation Rates

## Case study 1

During this hospital's DILAPAN-S trial, **zero patients** experienced hyperstimulation or tachysystole. Overall, there were no adverse outcomes for DILAPAN-S patients.

n = 23 (11 Primips & 12 Multips)

## Case study 2

“We’ve been using DILAPAN-S since 2018. I can’t remember ever having a hyperstimulation with DILAPAN-S that we needed to section – it is that safe. And for that reason we don’t need to monitor continuously, they don’t need multiple examinations, they request less pain relief and they remain out of hospital (as outpatients) . It is by far one of the best tolerated methods for patients”

- *Dr Chineze Otigbah, Consultant Obstetrician*



Click to watch on YouTube

Hospital location  
South East

Birth rate  
**3150**

Other methods  
**Propress & Prostin**

Patient groups  
**Frontline**

Further reading  
**COMRED**  
**SOLVE**  
**Benefits page**  
**Time & Cost Savings**

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contents page

# Hyperstimulation Rates

## Case study 3

The new “Induction: Labour of Love” podcast Episode 2 features a panel of consultant obstetricians and midwives discussing DILAPAN-S practices and outcomes in their hospital.

“Our (delivery) outcomes are the same as with Prostaglandins, but it's really **improving our flow** through the labour ward because you don't have women jumping the queue because they're hyperstimulating or going into labour. We have no CAT1 sections with DILAPAN-S in the stage prior to oxytocin, we don't have any hyperstimulation, so those things have made a huge difference to our workload as it has reduced the number of CTGs.”

- *Kate Conway, Matron*



Click to listen on Spotify  
Skip ahead to these comments at 19:38

## Hospital location

1. North West
2. London

## Birth rate

1. 5000
2. 6000

## Other methods

1. Prostaglandins and Balloon
2. Propess & Prostin

## Patient groups

1. Frontline
2. Frontline, maternal choice & VBACS

## Further reading

[COMRED](#)

[SOLVE](#)

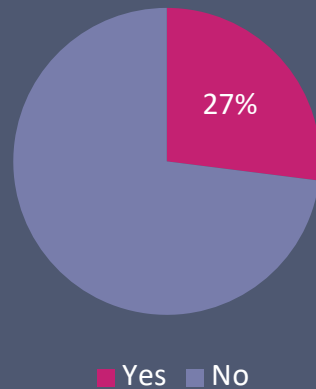
[Benefits page](#)

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# Syntocinon Usage

## Case study 1

Syntocinon required with DILAPAN-S



This hospital decided to start trialling DILAPAN-S as they had introduced a mechanical method but hadn't had great results, so they wanted to try other options. They achieved excellent results trialling DILAPAN-S as an option for all their IOLs and are aiming to implement it frontline. Following this introduction, they are hoping to commence an outpatient programme to further improve their patient flow.

n = 23 (11 Primips & 12 Multips)

## Case study 2

This hospital saw no significant increase in syntocinon when switching from Propess to DILAPAN-S for multips. There was a small increase in syntocinon use for Primips (62% DILAPAN-S vs. 56% Propess).



[Click to watch on YouTube](#)

Hospital location  
Wales

Birth rate  
2500

Other methods  
Propess & Prostin

Patient groups  
VBACS  
Outpatients  
2nd or 3rd line

Further reading  
COMRED  
SOLVE  
DILAFOL

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# Patient Satisfaction

## Case study 1

This hospital conducted a feedback survey for their patients who had an outpatient induction with DILAPAN-S using a Likert scale and dichotomous questions. 13 participants had previously had a hormonal induction.  $n = 19$

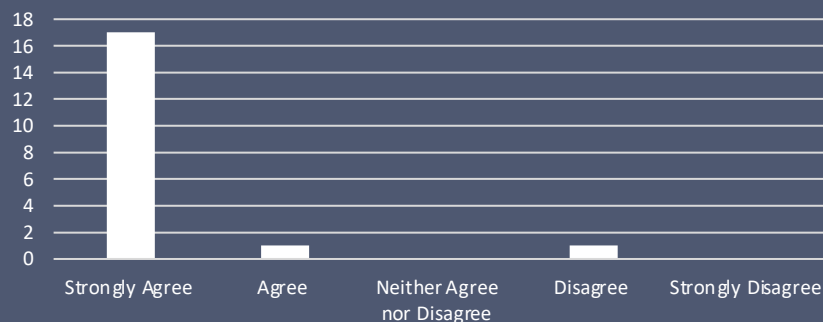
- **94.7%** would go home with DILAPAN-S again
- **90%** would recommend an outpatient induction with DILAPAN-S to a friend
- **100%** were able to mobilise, eat, and shower as normal

“Felt like a more natural pain than pessary”

“Discomfort and soreness was much less compared with hormone”

“It was like a natural pain”

“I would choose DILAPAN-S for a home induction again”



Level of pain experienced during insertion



Hospital location  
London

Birth rate  
6000

Other methods  
Propess  
Prostin

Patient groups  
Frontline  
Maternal choice  
VBACS

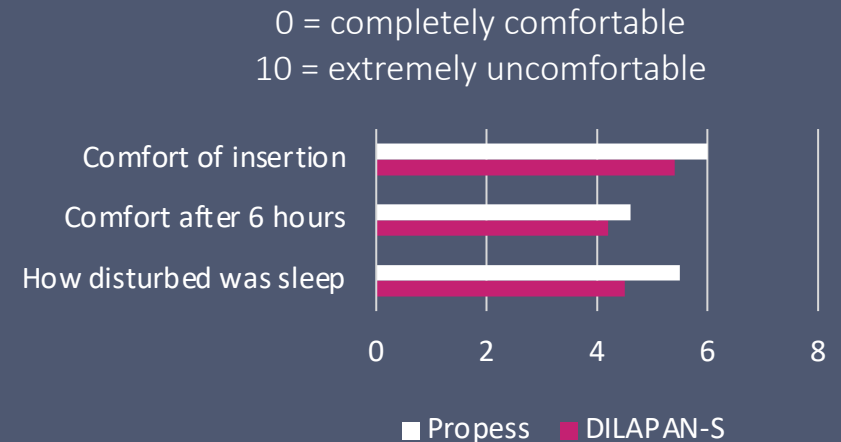
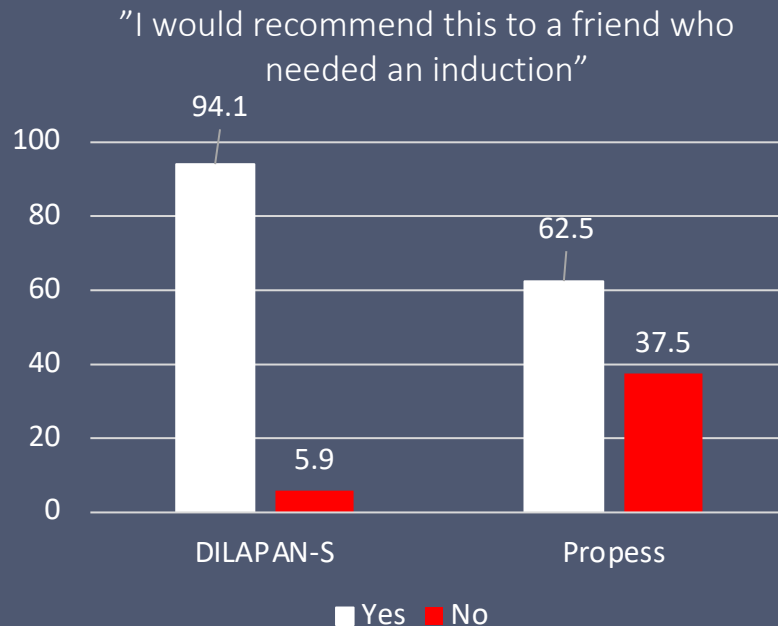
Further reading  
[COMRED](#)  
[SOLVE](#)  
[DILAFOL](#)

# Patient Satisfaction

## Case study 2

This hospital was experiencing low patient satisfaction, many unsuccessful IOLs leading to maternal request caesarean sections, high rates of analgesia and syntocinon use, as well as high hyperstimulation rates. They began using DILAPAN-S hoping to address these issues, as well as improve the overall IOL flow throughout their unit. Their trial was very successful as they saw immediate improvements. They decided to implement DILAPAN-S on a larger scale and recorded the results. n = 245 (150 Primips & 95 Multips)

**Analgesia usage:** 15% DILAPAN-S vs. 85% Propess (- 70%)



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Hospital location  
Wales

Birth rate  
5200

Other methods  
Propress & Prostin

Patient groups  
Frontline

Further reading  
[COMRED](#)  
[SOLVE](#)  
[DILAFOL](#)

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# Patient Satisfaction

## Case study 3

We asked a lead midwife with 3 years of experience using DILAPAN-S how their patient satisfaction has been affected since introducing DILAPAN-S as their frontline IOL method.

“The main change is comfort, being able to rest when they need to, better at mobilising. We’ve seen reduced analgesia; people don’t need significant pain relief anymore. Another good thing we’ve seen is less epidurals needed during labour. Before we introduced DILAPAN-S, lots of women were needing gas and air which made the IOL ward a difficult place to be, patients were hearing women around them in pain and making them very anxious. Entonox use has dramatically decreased making the whole environment is a lot nicer. Patients are calmer, and the midwives have more time to be with the women who need additional support. We’ve seen loads of benefits. I’ve also seen an improvement in the comfort of the patients since my insertion technique has improved - now they’re in next to no pain during the insertion, and afterwards just some mild period pain if that.”

- Lauren Day, Lead Midwife

[Watch her full testimonial here](#)

## Hospital location

1. London
2. South East

## Birth rate

1. 6000
2. 3150

## Other methods

1. Propess & Prostin
2. Propess & Prostin

## Patient groups

1. Frontline, Patient choice & VBACS
2. Frontline

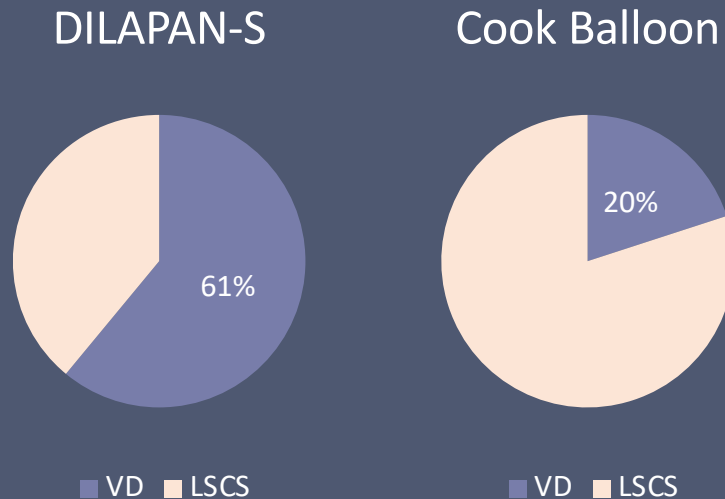
## Further reading

[Benefits page](#)

[Return to contents page](#)

# VBACS

## Case study 1



This hospital was experiencing a very low rate of successful VBACS using their original IOL method. After implementing DILAPAN-S, their VBACS rate improved by over 3x. Following this trial, they switched their mechanical method to DILAPAN-S.

n = 245 (150 Primips & 95 Multips)



[Click to watch on YouTube](#)

## Case study 2

“We particularly like using (DILAPAN-S) on high risk women and especially those with IUGR, small babies, GDM and VBACS because it does give us more control than prostaglandins”

- *Kate Conway, Matron*



[Click to listen on Spotify](#)

Hospital location  
London

Birth rate  
6000

Other methods  
Propess & Prostin

Patient groups  
Frontline  
Patient choice  
VBACS

Further reading  
[Benefits page](#)

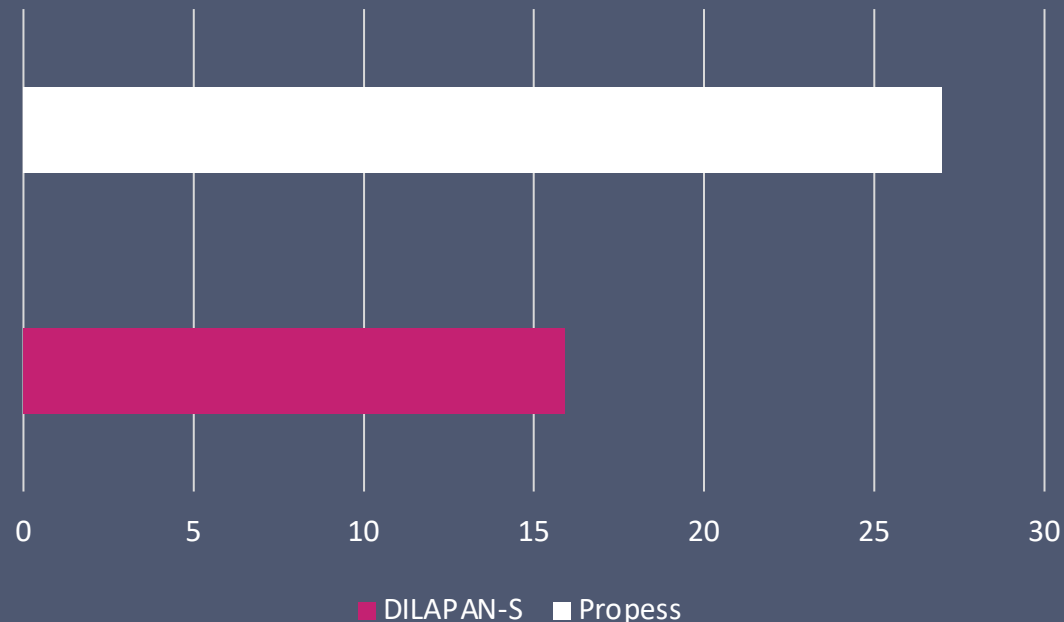
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# Time from ARM to Delivery

## Case study 1

This hospital was experiencing low patient satisfaction, many unsuccessful IOLs leading to maternal request caesarean sections, high rates of analgesia and syntocinon use, as well as high hyperstimulation rates. They began using DILAPAN-S hoping to address these issues, as well as improve the overall IOL flow throughout their unit. Their trial was very successful as they saw immediate improvements. They decided to implement DILAPAN-S on a larger scale and recorded the results. *n* = 245 (150 Primips & 95 Multips)

**Length of time to ARMable:** 15.9 hours DILAPAN-S vs. 27 hours Propess (- 11.1 hours)



Hospital location

- 1. London
- 2. Essex

Birth rate

- 1. 4500
- 2. 8000

Other methods

- 1. Propess
- 2. Prostaglandins

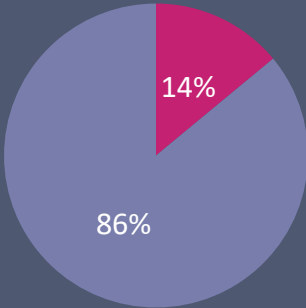
Patient groups

- 1. Frontline, maternal choice & VBACS
- 2. Frontline

Further reading  
n/a

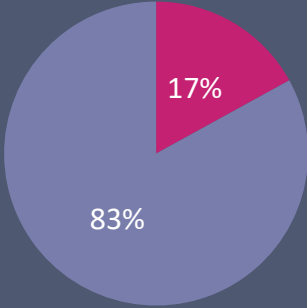
# Infection Rates

DILAPAN-S



■ Infection ■ No infection

Propess



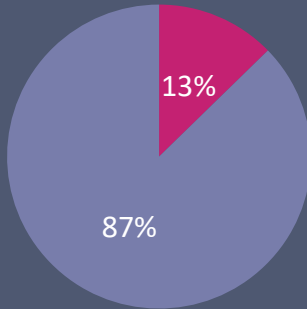
■ Infection ■ No infection

## Case study 1

This hospital found no significant difference in infection rates when comparing DILAPAN-S to Propess. Overall, there were **no adverse outcomes**.

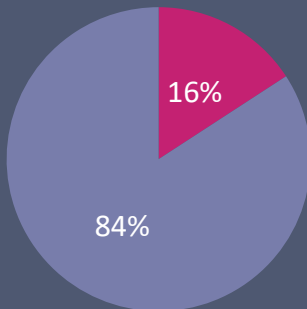
n = 245 (150 Primips & 95 Multips)

DILAPAN-S 2021



■ Infection ■ No infection

DILAPAN-S 2022



■ Infection ■ No infection

## Case study 2

The comparable infection rates of case studies 1 & 2 confirms the reliability of these findings.

n = 1,409  
 2021 Jan-Nov : 579 Primips & 517 Multips  
 2022 Jan-April: 164 Primips & 149 Multips

**Note:** Infectious complications represent infection rate throughout the entire course of labour and should not be interpreted as being related to the use of the product.

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Hospital location  
London

Birth rate  
4500

Other methods  
Propress

Patient groups  
Frontline  
maternal choice  
& VBACS

Further reading  
[SOLVE](#)  
[Time & Cost Savings](#)  
[Benefits page](#)

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contents page

# How DILAPAN-S compares to Propress

## Case study 1

This hospital was experiencing low patient satisfaction, many unsuccessful IOLs leading to maternal request caesarean sections, high rates of analgesia and syntocinon use, as well as high hyperstimulation rates. They began using DILAPAN-S hoping to address these issues, as well as improve the overall IOL flow throughout their unit. Their trial was very successful as they saw immediate improvements. They decided to implement DILAPAN-S on a larger scale and recorded the results. n = 245 (150 Primips & 95 Multips)

**Analgesia usage:** 15% DILAPAN-S vs. 85% Propress (- 70%)

**Length of time to ARMable:** 15.9 hours DILAPAN-S vs. 27 hours Propress (- 11.1 hours)

**1st round success:** 71% DILAPAN-S vs. 66% Propress (+ 5%)

### Other findings:

No significant increase in syntocinon use for multips

VBACS improved by 41%

Potential cost savings of **£213,696** p/a



Click to watch on YouTube

Hospital location

2. South East

3. East Midlands

Birth rate

2. 3150

3. 3500

Other methods

2. Propess & Prostin

3. Propess & Prostin

Patient groups

2. Frontline

3. Frontline

Further reading

[SOLVE](#)

[Time & Cost Savings](#)

[Benefits page](#)

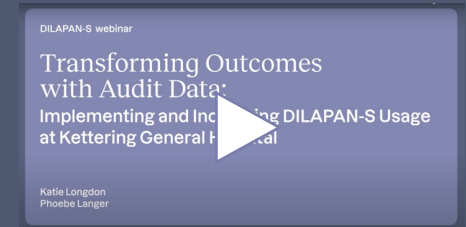
[Return to contents page](#)

# How DILAPAN-S compares to Propess

## Case study 2

“In July we saw our DILAPAN-S ladies were 13% more likely to have a normal delivery vs. with prostaglandins which was really positive. Relaying these figures to staff and patients is really what’s empowering them to make the decision to have DILAPAN-S....we would very much like to reduce our prostaglandin purchases and have our IOLs mostly DILAPAN-S”

- *Phoebe Langer, Preceptorship Lead Midwife*



[Click to watch on YouTube](#)

## Case study 3

The new “Induction: Labour of Love” podcast Episode 2 features a panel of consultant obstetricians and midwives discussing DILAPAN-S practices and outcomes in their hospital.

“Our (delivery) outcomes are the same as with Prostaglandins, but it's really improved our flow through the labour ward because you don’t have women jumping the queue because they’re hyperstimulating or going into labour. We have no CAT1 sections with DILAPAN-S in the stage prior to oxytocin, we don’t have any hyperstimulation, so those things have made a huge difference to our workload as it reduced the number of CTGs.”

- *Kate Conway, Matron*

[Click to listen on Spotify](#)  
Skip ahead to these comments at 19:38



Hospital location  
**London**

Birth rate  
**6000**

Other methods  
**Propress & Balloon**

Patient groups  
**Frontline  
maternal choice  
& VBACS**

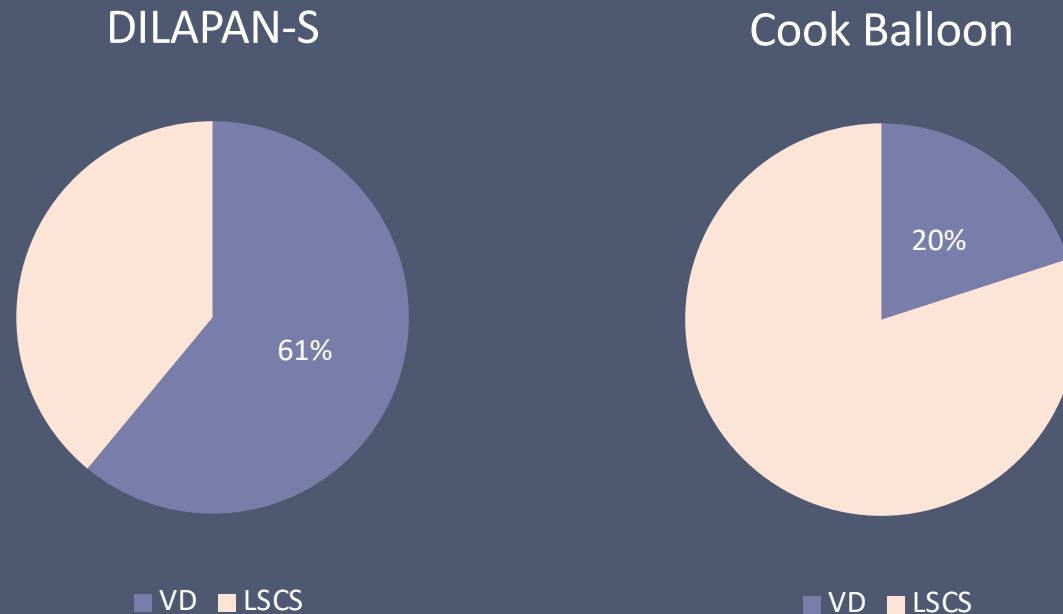
Further reading  
**DILAFOL**  
**Benefits page**

# How DILAPAN-S compares to Balloon

## Case study 1

This hospital was experiencing a very low rate of successful VBACS using their original IOL method. After implementing DILAPAN-S, their VBACS rate improved by over 3x.

n = 245 (150 Primips & 95 Multips)



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contents page

## Hospital location

1. **London**
2. **Various**

## Birth rate

1. **6000**
2. **Various**

## Other methods

1. **Propess & Prostin**
2. **Various**

## Patient groups

1. **Frontline, Maternal choice & VBACS**
2. **Various**

## Further reading

### [DILAPAN-S patient information](#)

[Return to contents page](#)

# DILAPAN-S for Patient Choice

## Case study 1

This hospital now offers DILAPAN-S alongside Propess and Prostin as their non-mechanical method after switching from the Balloon catheter following an audit that showed their VBACS rate with DILAPAN-S was 3x higher than the Balloon.  $n = 245$  (150 Primips & 95 Multips)

Patient analgesia usage was 15% with DILAPAN-S vs. 85% Propess **(- 70%)**

Patient feedback showed **94.1%** would recommend DILAPAN-S to a friend who needed an induction vs. 62.5% with Propess **(+ 31%)**

## Case study 2

The new “Induction: Labour of Love” podcast Episode 2 features a panel of consultant obstetricians and midwives discussing DILAPAN-S practices and outcomes in their hospital. The first topic of this episode discussed is patient choice, what resources are offered to patients and at what point in their pregnancy.



[Click to listen on Spotify](#)  
Skip ahead to patient choice discussion at 06:02



## Hospital location

1. North West
2. London
3. North West
4. Essex

## Birth rate

1. 5000
2. 6000
3. 1200
4. 8800

## Other methods

1. Prostaglandins and Balloon
2. Propess & Prostin
3. Prostin
4. Prostaglandins

## Patient groups

### Frontline

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contents page

# DILAPAN-S for Frontline IOL

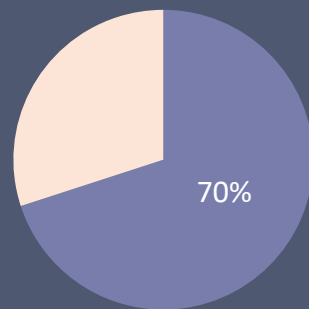
## Case studies 1, 2, 3 & 4

The combined vaginal delivery data of 4 hospitals using DILAPAN-S as their frontline method was **64.6%** ranging from 59% - 77%. For a breakdown of these results, see the [vaginal delivery rates case study pages](#). n = 1,493 (782 Primips & 711 Multips)

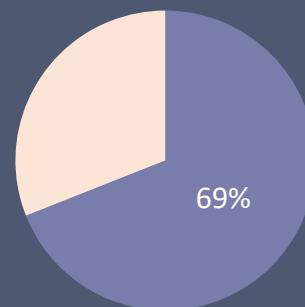
## Case studies 1, 2 & 3

The combined 1<sup>st</sup> round success data of 3 hospitals using DILAPAN-S as their frontline method was **70%** for multips and **69%** for primips ranging from 60% - 83%. The average syntocinon usage following ARM was **42%** ranging from 27% - 50%. For a breakdown of these results, see the [1st round success](#) and [syntocinon usage](#) case study pages. n = 81 (36 Primips & 45 Multips)

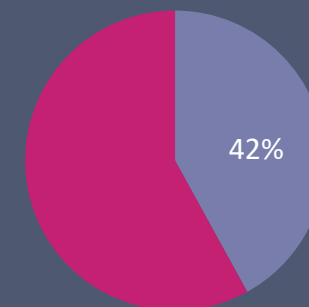
Multips 1<sup>st</sup> round



Primips 1<sup>st</sup> round



Synto required



■ Successful ■ Unsuccessful ■ Successful ■ Unsuccessful

■ Yes ■ No

Hospital location  
Essex

Birth rate  
8800

Other methods  
Prostaglandins

Patient groups  
Frontline &  
Outpatients

Further reading  
HOME CARE  
Time & Cost Savings

# DILAPAN-S for Outpatient Induction

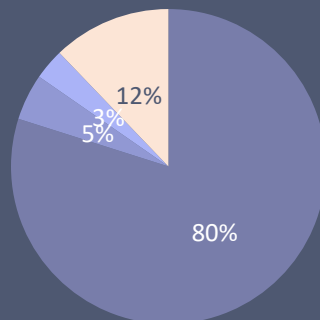
## Case study 1

This hospital started DILAPAN-S in 2020 as their frontline induction method. After introducing DILAPAN-S, their outpatient induction rate increased from 8% to 32%. Since 2022, their outpatient induction rate has increased further to **39%**. Their 2022 audit showed their VD rate for primips was **10% higher** in the outpatient group. They have found a higher outpatient rate has increased patient satisfaction, as well as helped to relieve workload on the ward.

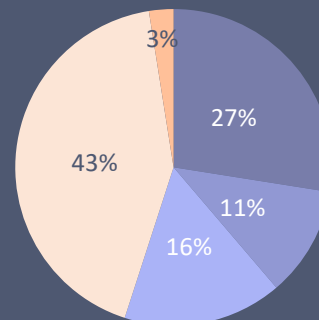
n = 1,409 (2021 Jan-Nov : 579 Primips & 517 Multips. 2022 Jan-April: 164 Primips & 149 Multips)

Combined outpatient vaginal delivery rate = **78%**

Multiples OP 2021-22



Primips OP 2022



■ NVD ■ Kiwi ■ Forceps ■ EMCS ■ NVD ■ Kiwi ■ Forceps ■ EMCS ■ ELCS



[Click to watch on YouTube](#)

[Return to contents page](#)

Hospital location  
Wales

Birth rate  
2500

Other methods  
Propress & Prostin

Patient groups  
VBACS  
Outpatients  
2nd or 3rd line

Further reading  
HOMECARE  
Time & Cost Savings

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# DILAPAN-S for Outpatient Induction

## Case study 2

This hospital conducted a feedback survey for their patients who had an outpatient induction with DILAPAN-S using a Likert scale and dichotomous questions. 13 participants had previously had a hormonal induction. *n = 19*

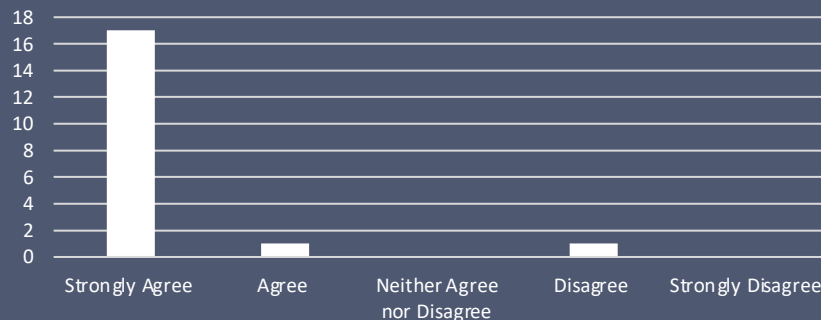
- **94.7%** would go home with DILAPAN-S again
- **90%** would recommend an outpatient induction with DILAPAN-S to a friend
- **100%** were able to mobilise, eat, and shower as normal

“Felt like a more natural pain than pessary”

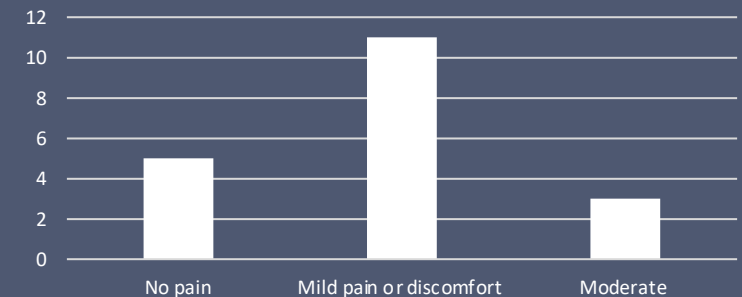
“Discomfort and soreness was much less compared with hormone”

“It was like a natural pain”

“I would choose DILAPAN-S for a home induction again”



Level of pain experienced during insertion



Hospital location  
North East

Birth rate  
2200

Other methods  
Prostin

Patient groups  
Frontline &  
Outpatients

Further reading  
HEMOCARE  
Time & Cost Savings

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contents page

# DILAPAN-S for Outpatient Induction

## Case study 3

The new “Induction: Labour of Love” podcast Episode 3 features a panel of hospitals from the North of the UK using DILAPAN-S for different patient groups, including outpatient IOL.

“You don’t get Prostin pains with DILAPAN-S so it’s a much more comfortable experience. I’m honest that it’s a lengthier insertion and more uncomfortable than putting in a Prostin, but that’s it really since you don’t examine them for another 12-15 hours. With Prostin they’re probably having 3 or 4 VEs but with DILAPAN-S it’s 1 and they can go home. Our women with children like that because they get to spend more time at home with their other children, rather than their children missing mummy for a few days then suddenly mum comes home with a new baby”

- Jill Sturt, Consultant Obstetrician



Skip ahead to these comments at 13:08

Hospital location

1. London
2. Various
3. East Midlands

Birth rate

1. 6000
2. Various
3. 3500

Other methods

1. Propess & Prostin
2. Various
3. Propess & Prostin

Patient groups

1. Frontline, Maternal choice & VBACS
2. Various
3. Frontline

Further reading

[Time & cost savings](#)

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# DILAPAN-S for Midwife-led IOL

## Case study 1

Watch “Midwife-led Induction of Labour with DILAPAN-S” on YouTube by clicking on the video.



## Case study 2

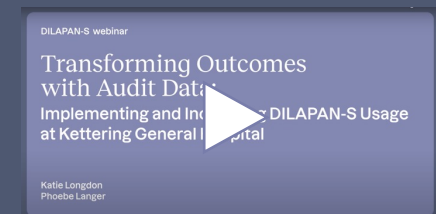
The new “Induction: Labour of Love” podcast Episode 2 features a panel of consultant obstetricians and midwives discussing DILAPAN-S practices and outcomes in their hospital. One hospital with very successful outcomes using DILAPAN-S for midwife-led IOL shares their advice, current practice and future plans.

[Click to listen on Spotify](#)  
Skip ahead to midwife-led discussion at 12:22



## Case study 3

This hospital using DILAPAN-S for midwife-led induction of labour shares their outcomes, how they gave their midwives confidence, and how they’re keeping up the momentum.



Hospital location  
Wales

Birth rate  
5200

Other methods  
Propess & Prostin

Patient groups  
Frontline

Further reading  
[Training Video](#)

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contents page](#)

# Insertion Procedure Advice

## Case study 1

"The more you use it, the easier it is – it's all about practice. It helps to offer to all women. We all feel much more confident using it and we're much better at inserting it. Initially we only used it for VBACs and SGA babies - their cervixes were typically very difficult to reach and unfavourable. Now we've opened the patient groups up, it has really helped develop our confidence. Having more favourable cervixes to work with initially helps build your confidence. We've seen loads of benefits. I've also seen an improvement in the comfort of my patients since my insertion technique has improved - now they're in next to no pain during the insertion, and afterwards just some mild period pain, if that. Also - learn both (digital and speculum) techniques, as you might find you're better at one or the other. Inserting 2-3 dilators for cervixes that aren't favourable enough for the full 4-5 has worked really well, we just need more people to be aware that it helps."

- Lauren Day, Lead Midwife

### Insertion tips from the DILAPAN-S Midwives

- 1. Position:** Ensure the patient is in an optimum position prior to commencing insertion. Really encourage the pelvis to be tilted, this could be in lithotomy, using a pillow, ultrasound wedge etc. The right position makes a huge difference to the insertion.
- 2. Prepare:** Get all equipment set up and in a place where you can reach it once you begin. This will make the process quicker and easier for both yourself, and the patient.
- 3. Don't give up** if you can't get it in the first time, it can be fiddly sometimes, so take a breath and try again, especially if you are new to it. You may occasionally need a second person to have an attempt. (Think about a time when you couldn't cannulate someone or ARM them, you wouldn't just give up, you'd have another go and then ask a colleague to try). You've got this!

Hospital location  
Wales

Birth rate  
5200

Other methods  
Propess & Prostin

Patient groups  
Frontline

Further reading  
[Training Video](#)

[Return to  
contents page](#)

# Improving Outcomes

## Case study 1

We asked a midwife how their unit has achieved great outcomes using DILAPAN-S.

**Guidelines:** We use DILAPAN-S as an alternative to Propess to shorten the induction period. If a consultant uses Propess after DILAPAN-S, it increases the length of induction so we try to encourage seeing them as alternatives to each other rather than using them together. Something that has worked well is if we can't get 4-5 dilators in initially, just insert as many dilators as you can, then (after 4-6 hours) remove them, assess the cervix and do a full 4-5 dilator insertion afterwards.

**Protocol:** We decided it was best to ARM on the induction ward, and have a midwife allocated just in case there were any issues she could go straight to delivery suite to avoid delays. We trialled it for 2 months and it worked really well. Communication is key - at the point we assess for ARM, we call our delivery suite first, then call our coordinator on the MLU so everyone is aware what's happening. All patients then have a CTG post-ARM for 30 mins and if it's normal then they can be transferred. They mobilise on the MLU for 6 hours. If labour starts then they stay on the MLU, but if there's no signs of labour then we recommend transfer back to delivery suite to have syntocinon. Women have the option during the 6 hours of mobilisation to request a transfer back to delivery suite if they're fed up, but we give them as much time as possible to get into active labour. We still regularly assess them to ensure the baby isn't in distress and baselines are still normal, but as long as there's no change in risk status, they can stay for 6 hours. Some women even opt to stay for longer. We feel it's important to look at how we can maintain the midwife-led pathway and not automatically assume that because they're having an induction, they need to be consultant-led.

**Top tips:** Have patience to see the results. Antenatal education has been really helpful for us - I run a virtual info session with patients prior to their induction, so when they come in they know the process and don't feel nervous. Inserting 2-3 dilators for cervixes that aren't favourable enough for the full 4-5 has worked really well.

[Watch her full testimonial here](#)

Hospital location  
London

Birth rate  
6000

Other methods  
Propess & Prostin

Patient groups  
Frontline  
Maternal choice

Further reading  
[Training Video](#)

[Return to  
contents page](#)

# Improving Staff Confidence

## Case study 1

We asked a HCP how the midwives at their unit achieved a high level of confidence using DILAPAN-S.

“There was a lot of clinical education support on the ward by the team leader, and some doctors were very good at teaching, and it helped having the DILAPAN-S team present to support not only on the ward, but day assessment too for our outpatients.”

- Farida Kagimu, Team Leader Antenatal Ward

### Timestamps

How they manage insertions: 0:05

Staff confidence: 0:27

Implementing DILAPAN-S into a wider patient group: 3:03

Persuading staff to give DILAPAN-S a chance: 5:35

How they changed their hospital guidelines: 7:27



[Click to listen to  
the full interview](#)

### Insertion tips from the DILAPAN-S Midwives

- 1. Position:** Ensure the patient is in an optimum position prior to commencing insertion. Really encourage the pelvis to be tilted, this could be in lithotomy, using a pillow, ultrasound wedge etc. The right position makes a huge difference to the insertion.
- 2. Prepare:** Get all equipment set up and in a place where you can reach it once you begin. This will make the process quicker and easier for both yourself, and the patient.
- 3. Don't give up** if you can't get it in the first time, it can be fiddly sometimes, so take a breath and try again, especially if you are new to it. You may occasionally need a second person to have an attempt. (Think about a time when you couldn't cannulate someone or ARM them, you wouldn't just give up, you'd have another go and then ask a colleague to try). You've got this!



Hospital location

2. **Wales**

3. **North East**

Birth rate

2. **5200**

3. **2200**

Other methods

2. **Propess & Prostin**

3. **Prostin**

Patient groups

2. **Frontline**

3. **Frontline and  
Outpatients**

Further reading

[Training Video](#)

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contents page](#)

# Improving Staff Confidence

## Case study 2

“Practice! The more you use it (it helps to offer to all women) we all feel much more confident using it and we’re much better at inserting it. Initially we only used it for VBACs and SGA babies - their cervixes were typically very difficult to reach and unfavourable. Now we’ve opened the patient groups up, its really helped develop our confidence. Having more favourable cervixes to work with initially helps build your confidence. We’ve seen loads of benefits. I’ve also seen an improvement in the comfort of my patients since my insertion technique has improved - now they’re in next to no pain during the insertion, and afterwards just some mild period pain if that. Also - learn both techniques, as you might find you’re better at one or the other.”

- *Lauren Day, Lead Midwife*

[Watch her full testimonial here](#)

## Case study 3

“The DILAPAN-S reps have been very supportive giving regular training sessions. We also have a training model that staff can access at all times. The confidence comes as you do more and more insertions. As we offer all our women the option of DILAPAN-S we get reasonable patient numbers through to gain confidence in insertion.”

- *Jill Sturt, Consultant Obstetrician*

[Read her full testimonial here](#)

Hospital location

1. Wales
2. East Midlands

Birth rate

1. 5200
2. 3500

Other methods

1. Propess & Prostin
2. Propess & Prostin

Patient groups

1. Frontline
2. Frontline

Further reading

n/a

[Return to contents page](#)

# Addressing Culture Change

## Case study 1

“Changing staff attitudes is crucial - it can be hard to convince people without any experience with DILAPAN-S that it’s a good option. Lots of training is important to make people feel confident inserting it before you fully roll it out. Find midwives who are passionate about giving choice to women & reducing hyperstimulation, share data where it has worked in other areas. Now we have a good group of midwives, some of which had a baby induced using DILAPAN-S, who really understand the benefits so that’s really helped. Getting consultants on board is also really important...We’ve tried to move away from the bishop score system. With Propess you usually get a high bishop score before ARM, with DILAPAN-S it’s usually closer to 4 or 5, but they’re still 3cm dilated and you’re still able to break their waters. Educating staff that they don’t need to be a high BS; as long as the cervix is soft and dilated, it’s still possible. With DILAPAN-S you won’t get necessarily get effacement, but you will get a soft stretchy cervix. Staff having the experience of being able to ARM a low BS non-effaced cervix has really helped change their attitudes.”

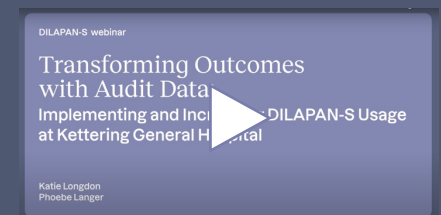
- Lauren Day, Lead Midwife

[Watch her full testimonial here](#)

## Case study 2

“We created a poster with our audit data for our staff to remind them that women who have Propess are 13% less likely to have a normal delivery than with DILAPAN-S, and women who have DILAPAN-S have a more positive experience overall. This really helped to encourage and empower them to make the decision to choose DILAPAN-S, as well as help counselling patients”

- Phoebe Langer, Preceptorship Lead Midwife



[Click to watch on YouTube](#)

Hospital location

1. Wales
2. South East

Birth rate

1. 5200
2. 3150

Other methods

1. Propess & Prostin
2. Propess & Prostin

Patient groups

1. Frontline
2. Frontline

Further reading

[SOLVE](#)  
[DILAFOL](#)

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# Overcoming Stakeholder Resistance

## Case study 1

“I think it’s just lack of knowledge, not having time to familiarise themselves with the benefits. Some consultants who were apprehensive are now really on board - seeing is believing. We’ve shown the consultants the RCTs (SOLVE, DILAFOL etc.) but it’s really about seeing their patients get the benefits of DILAPAN-S.”

- Lauren Day, Lead Midwife

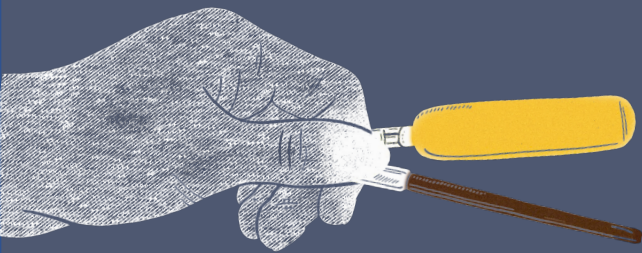
[Watch her full testimonial here](#)

## Case study 2

“Some were very keen to get involved, others were very resistant. We still have some people who don’t like inserting it because it can be fiddly to start with. Everyone is busy and wants to speed it up, but if you invest 30 minutes to get it in properly and make sure your patient is comfortable, you get a much better outcome. You have to be there to push the staff and make sure they’re supported, make sure everyone is trained and happy with how it works, but you need people there at the first few insertions to reassure they’ve done it right! Otherwise, they just abandon it and give them a Propess. (To help overcome the resistance) we trained the CPD team, band 7 coordinators, and core antenatal team as our key team to start with. We added it to our mandatory training so every midwife was trained over the course of a year, and it’s now included in induction training for every new midwife. We had the DILAPAN-S team coming in to support us too.”

- Kate Conway, Matron

[Watch her full testimonial here](#)



# Top-Tips from HCPs

We made the mistake of starting out offering to just a small number of patient groups which made the implementation, and acceptance of change with staff much more disjointed and slower, with more resistance. If I could do it again, I would have started out offering to all patient groups. Make sure you have enough staff members trained to insert DILAPAN-S. Make sure your community staff are aware and have been educated about DILAPAN-S as they are the staff group that talk to the patients most about the induction process.

*Jill Sturt, Consultant Obstetrician*

Be prepared for the journey, it won't happen overnight. You need a programme of training to train ALL midwives, not just your core team. Get some consultants behind it and supporting you, they can support less confident midwives with inserting. It's crucial that it be a midwife-led process. Obstetrician-led IOL can slow the process, and the benefit of DILAPAN-S for us is about improving the speed, efficacy, and efficiency of IOL and reducing delays.

*Kate Conway, Matron*

We created an audit data poster for our staff with our DILAPAN-S vs. Propess outcomes so they see it improves normal delivery rates and patient satisfaction, which encourages and empowers staff to use DILAPAN-S. We target our training to staff who most need support, offer to observe their insertions, and allow access to the training model at all times. We also trained our doctors so they're able to help a midwife with insertion if they struggle.

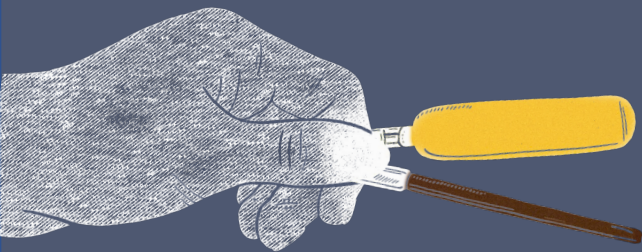
*Phoebe Langer, Preceptorship Lead Midwife*

Have patience to see the results. Antenatal education has been really helpful for us - I run a virtual info session with patients prior to their induction, so when they come in they know the process and don't feel nervous. Inserting 2-3 dilators for cervixes that aren't favourable enough for the full 4-5 has worked really well, we just need more people to be aware that it helps.

*Lauren Day, Lead Midwife*

I've found having a standalone torch, longer speculum and (ideally) a lithotomy bed have made the process easier. Tilting the pelvis with a wedge or pillow also brings the cervix forward for those that are a little posterior.

*Rebecca Villasanta, Midwife*



# Want to learn more?

Click the buttons below to download educational resources.

[DILAPAN-S Product Brochure](#)

[Time and Cost Savings](#)

[HOMECARE Study Brochure](#)

[SOLVE Study Brochure](#)

[COMRED Study Brochure](#)

[DILAFOL Study Brochure](#)

[Patient Information Leaflet](#)

[Insertion Guide Video](#)

[E-Learning Platform](#)

## Want to speak to a healthcare professional?

For a real-life conversation, complete this form to be put in touch with a healthcare professional who is experienced with DILAPAN-S. The form will ask what outcomes, challenges, and IOL methods you would like to discuss so we know who would be best for you to speak with based on their experience.

[Contact form](#)

# How to Order

DILAPAN-S is available to purchase directly via AGHealth or via NHSSC.

Description	Product code	Quantity
DILAPAN-S - 4mm x 55mm – IOL	DS002-4X55	25/box
DILAPAN-S - 4mm x 65mm – TOP	DS002-4X65	25/box
DILAPAN-S - 3mm x 55mm – Fertility	DS002-3X55	25/box

Place an order [sales@aghealth.co.uk](mailto:sales@aghealth.co.uk)

Product enquiries [info@aghealth.co.uk](mailto:info@aghealth.co.uk)

AGHealth is a UK-based company, specialising in leading obstetric products.

We offer hands-on clinical support via our training programme lead by our DILAPAN-S specialist midwives.

We are also able to support with

- Audit data analysis
- Example SOP & business cases
- Patient information resources
- Training videos & guides
- Educational resources for HCPs



# References

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2. Saad AF, Villarreal J, Eid J, *et al.* *American Journal of Obstetrics and Gynecology.* 2019; 220(3):275.e1-275.e9.
3. Gupta *et al.*, 2022, Gupta JK, Maher A, Stubbs C, Brocklehurst P, Daniels JP, Hardy P on behalf of the SOLVE collaborative group, *American Journal of Obstetrics & Gynecology, MFM*, March 2022
4. Gavara R. *et al.* Cervical Ripening Efficacy of Synthetic Osmotic Cervical Dilator Compared With Oral Misoprostol at Term, *Obstetrics & Gynecology: May, 2022*
5. Avritscher EBC *et al.* Economic evaluation of outpatient vs inpatient cervical ripening using DILAPAN-S prior to induction of labor. Poster presentation. *Am J. Obstet Gynecol*, Vol 228, Issue 1, Supplement, S631, Jan 2023
6. Johnson K.: Midwife – led DILAPAN-S Induction of Labour. Oral presentation, 5th European Congress of Intrapartum Care, May 2021
7. NICE guideline [NG207]