DILAPAN-S outpatient vs inpatient use (2022)
Economic evaluation of outpatient use (2023)

Dilapan-S®

Outpatient Compared with Inpatient Preinduction Cervical Ripening Using a Synthetic Osmotic Dilator (HOMECARE trial)[1]

Accompanied by secondary analysis

Economic Evaluation of Outpatient vs. Inpatient Cervical Ripening Using DILAPAN-S Prior to Induction of Labor[2]

Study design

An open label, randomised controlled trial in two US academic centers.
339 participants were randomised (171 inpatient and 167 outpatient; one withdrawal).

Principal investigator

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Objective

To assess whether outpatient cervical ripening with a synthetic osmotic dilator (DILAPAN-S) shortens the length of hospital stay in term pregnancies undergoing labor induction.[1]
To compare health system costs of outpatient to inpatient cervical ripening with a synthetic hygroscopic cervical dilator (DILAPAN-S).[2]

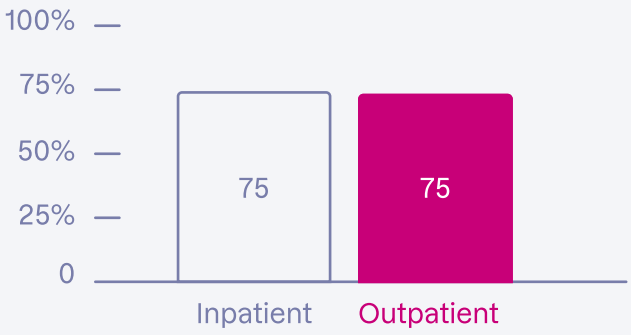
Baseline characteristics

Nuliparous represented 46% of subjects in inpatient, resp. 50% in outpatient group.

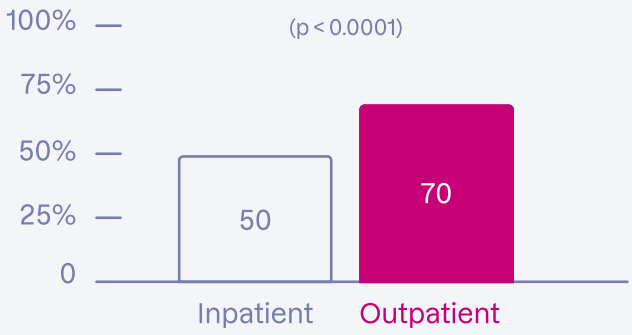
DILAPAN-S outpatient cervical ripening
- significantly increases vaginal delivery rate within 24 hours of admission
- reduces the length of hospital stay and staff time requirements
- results in significant cost savings to the hospital

Vaginal delivery rate

Total



Within 24 hours of admission



Women in the outpatient group were instructed to return to the hospital 12 hours after DILAPAN-S insertion for admission, or earlier if they experienced excessive bleeding, membranes rupture, pain, or any other concerns. In both groups, 15% of induced women required a second round of cervical ripening.

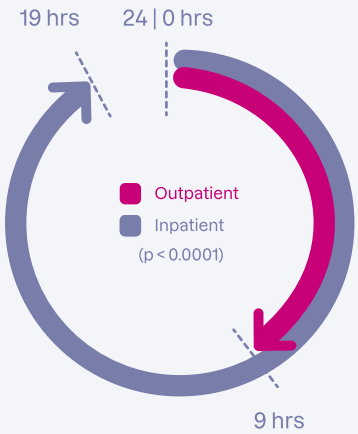
Earlier return of outpatient patients

Only 2.4%

4 out of 166 women

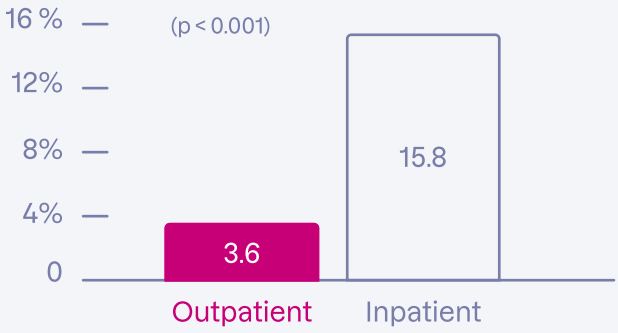
– Only 4 out of 166 (2.4%) women in the outpatient group returned to hospital before their scheduled admission time, mainly due to contractions or membrane leakage.
– These findings confirm the reliability of DILAPAN-S as a highly predictable cervical ripening agent that simplifies the scheduling process.

Time from admission to active labour



Analgesia need

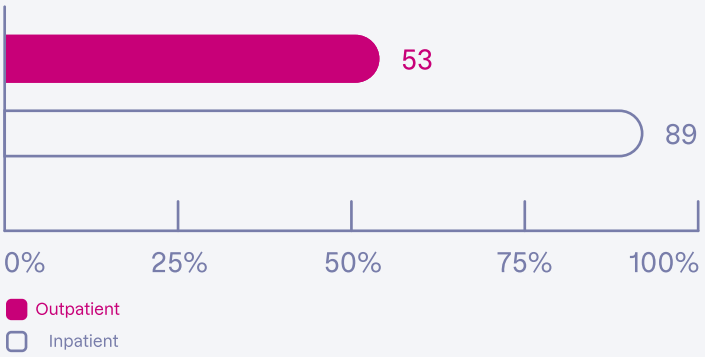
Typically, the use of analgesics during inpatient cervical ripening with DILAPAN-S is low[3] and is even lower when the procedure is performed in an outpatient setting.



Maternal and neonatal complications did not differ among both groups. No significant maternal or neonatal safety issues.

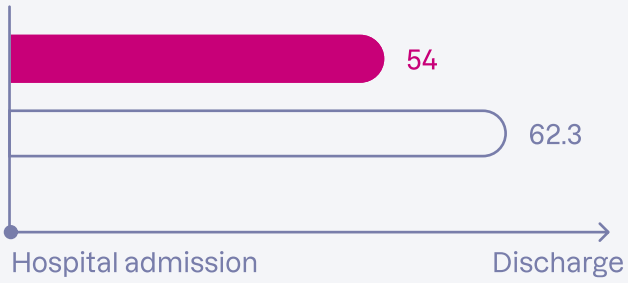
Hospital stay longer than 48 hours (% of women)

(p<0.001)

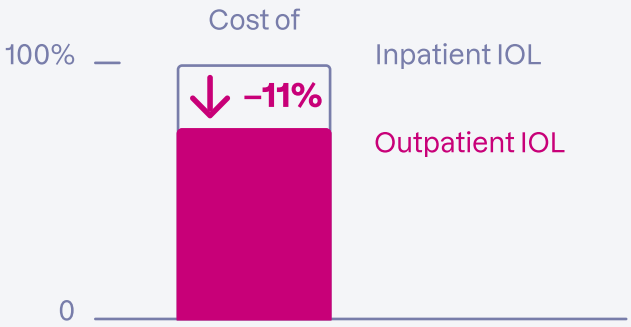


Total length of hospital stay (hours)

(p<0.001)



Hospital budget savings associated with outpatient cervical ripening



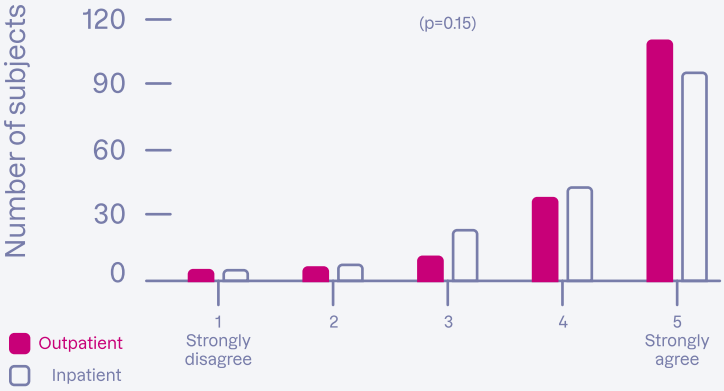
The calculation is based on the actual facility costs, inflated to 2022 values (in USD). The mean costs of outpatient IOL was 7,174 USD, whereas the costs of inpatient IOL was 8,024 USD, resulting in savings of 879 USD (11%) per induced woman.

The reduction in hospital stay and decreased staff time requirements associated with DILAPAN-S outpatient cervical ripening resulted in significant hospital costs savings.

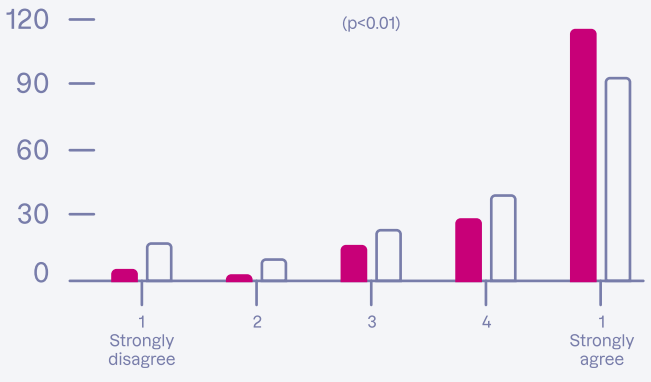
Maternal satisfaction

The trial confirmed the results of previous randomised trials showing excellent maternal satisfaction with inpatient DILAPAN-S cervical ripening.[3,4,5]
Outpatient cervical ripening may further improve maternal experience and satisfaction. Women in the outpatient group were better able to walk, eat and shower, and stated they would choose the same approach for a subsequent pregnancy.

I am pleased with my overall cervical ripening experience with Dilapan-S.



Having my cervix soften and distended outpatient is beneficial and a great idea.



HOMECARE trial and secondary economic evaluation DILAPAN-S key facts

70%
vaginal delivery rate within 24 hours of admission

36%
decrease in hospital stay > 48 hours

11%
hospital budget savings

Only 3.6%
needed analgesia during outpatient cervical ripening

REFERENCES:

1. Saad AF et al. Outpatient compared with inpatient preinduction cervical ripening using a synthetic osmotic dilator: A randomized clinical trial. Obstet Gynecol. 2022 Oct 1;140(4):584-590.
2. Avritscher EBC et al. Economic evaluation of outpatient vs inpatient cervical ripening using Dilapan-S prior to induction of labor. Poster presentation. Am J Obset. Gynecol, Vol 228, Issue 1, Supplement, S631, Jan 2023.
3. Gupta JK, Maher A, Stubbs C, et al. A randomized trial of synthetic osmotic cervical dilator for induction of labor vs dinoprostone vaginal insert. Am J. Obstet Gynecol MFM. 2022;4:100628.
4. Gavara R, Saad AF, Wapner RJ, et al. Cervical Ripening Efficacy of Synthetic Osmotic Cervical Dilator Compared With Oral Misoprostol at Term: A Randomized Controlled Trial. Obstetrics & Gynecology. 2022;139(6):1083-1091.
5. Saad AF, Villarreal J, Eid J, et al. A randomized controlled trial of Dilapan-S vs Foley balloon for preinduction cervical ripening (DILAFOL trial). Am J Obstet Gynecol 2019;220:275.e1-9.

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