

# A multicenter cohort study analyzing the implementation of a new guideline for diagnosis and treatment of women with pregnancy of unknown location or ectopic pregnancy in the Netherlands

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## Abstract

**Objective:** Evaluation of the implementation of a new guideline for diagnosis and treatment of women with pregnancy of unknown location (PUL) or ectopic pregnancy (EP). **Design:** Multicenter retrospective cohort study **Setting:** Six hospitals in the Northern part of the Netherlands **Population and methods:** Women above 18-years old with a final diagnosis of PUL or EP between January 2012 to April 2020. **Main outcome measures:** Diagnostic findings, type of treatment and outcomes, before and after implementation of the guideline. **User interpretation of the guidelines.** **Results:** 1306 women with PUL or EP were included. The amount of women diagnosed with PUL has significantly increased between the guideline cohorts (28.4%;174/693 versus 16.6%;115/613  $P<0.001$ ). A significantly lower percentage of women using the new guideline underwent surgical management versus treatment with MTX (odds ratio [OR] =0.516, 95% confidence interval [CI] 0.399 – 0.668  $P<0.001$ ). Among women treated with MTX, the overall success rate was significantly lower compared to surgery (80.5%;103/128 versus 95.2%; 943/991  $P=0.007$ ). There was no observed difference in adverse events or guideline adherence between the guidelines. **Conclusion:** The implementation of the new guideline contributes to an increase in women diagnosed with PUL and treated with MTX. Treatment with MTX caused more complications and a lower treatment success compared to women undergoing surgery. This did not lead to an increase in adverse events between the guidelines. The overall adherence to the guidelines was equal.

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