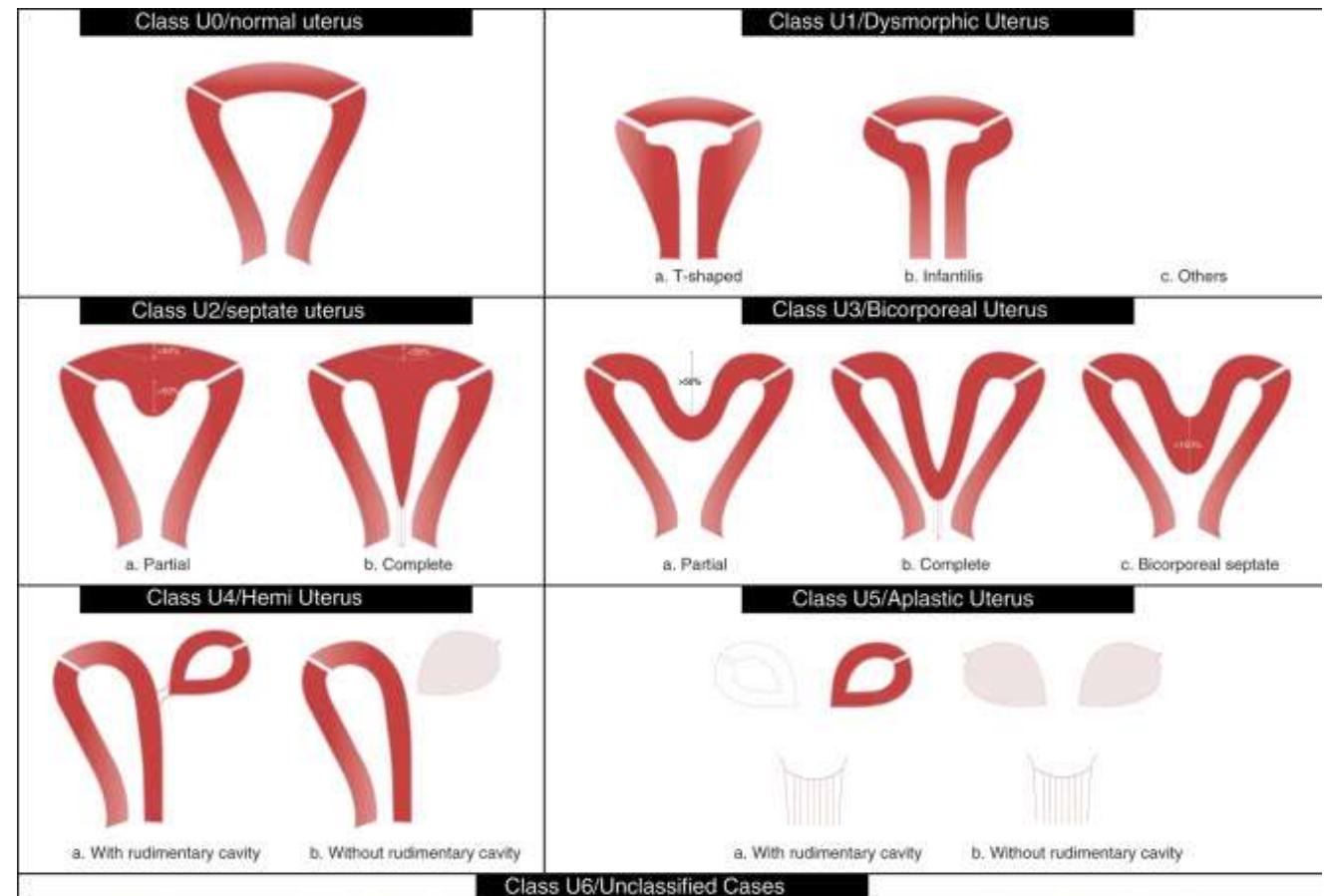


J.F. Rikken, K.W.  
Verhorstert, M.H.  
Emanuel, W.K.  
Kuchenbecker, F.W.  
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# Septum resection in women with a septate uterus: a cohort study

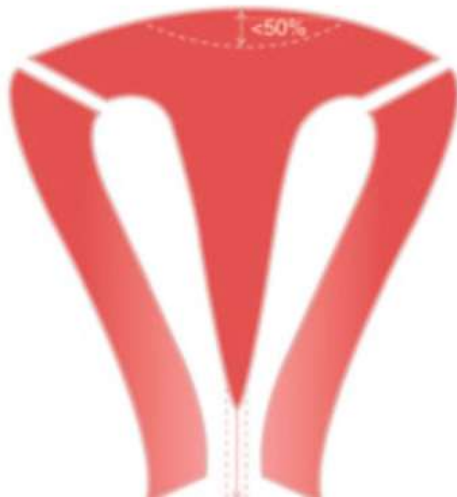
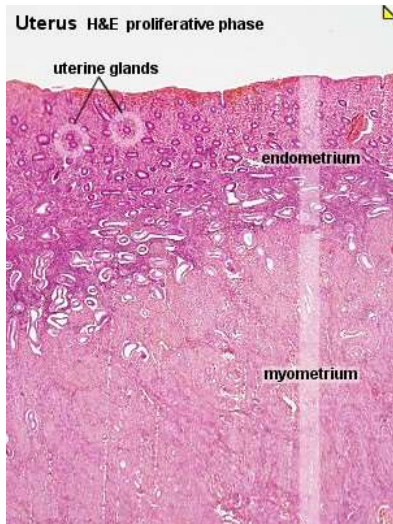
# Background

- Most common congenital abnormality
- 2.3%
- Often surgery recommended



# Septum Study Outcome

- Infertility
- Early pregnancy loss
- Preterm Labor
- Fetal malpresentation.



# Pathophysiology

- The intrauterine Septum consist of
  - Endometrium
  - Myometrium
  - Vascularization
  
- The intrauterine Septum has
  - Lower expression of HOXA10 genes
  - Lower levels of VEGF receptors
  - Lower number of glandular cells and ciliae

No histological  
difference

# Septum Resection

## Current Evidence

- **Low grade** evidence (grade C)
  1. Observational studies in a before/after design  
Better outcome
  2. Non randomized comparative studies  
Better outcome or no difference
- **Current guidelines**
  - ASRM: It is reasonable to remove an intra-uterine septum
  - ESHRE, NICE, RCOG: The procedure must be evaluated in future studies



# 1. Study Question

Does hysteroscopic resection improve reproductive outcome in women with a septate uterus?



## 2. Study Design

International multicenter cohort study

Study population: women with a septate uterus and a wish to conceive: Resection or expective management.

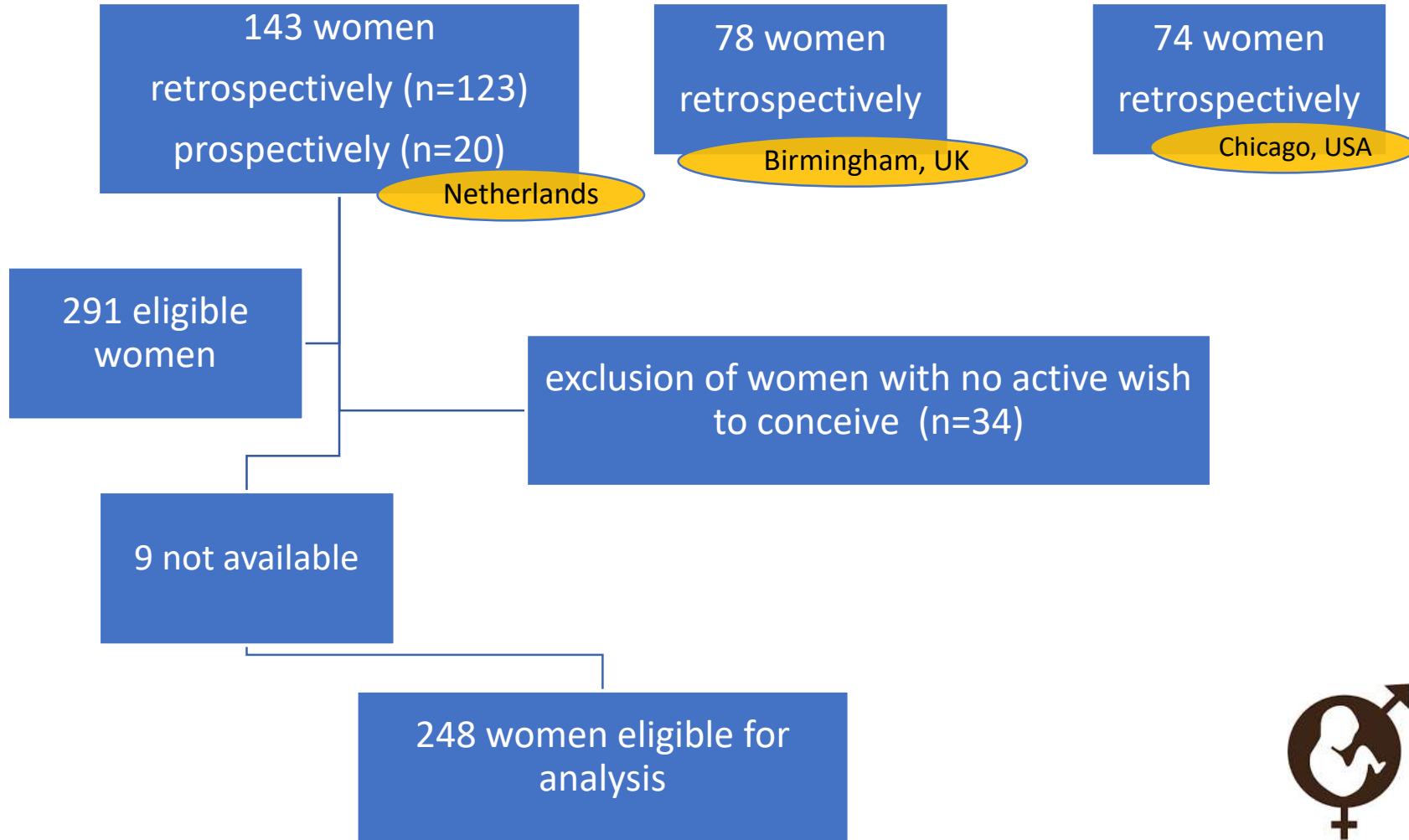
Primary outcome: life birth

Secondary outcome: ongoing pregnancy, pregnancy loss, preterm birth and malpresentation.

### Statistical analysis

- Baseline characteristics and data on all pregnancies
- Kaplan Meyer, Cox regression and logistical regression
- Possible confounders: age, BMI, smoking, ethnicity, country, subfertility, pregnancy loss, preterm birth, previous life birth

### 3. Study Flowchart





## 4. Patient Baseline Characteristics

Patients	Septum Resection	Expectant management	P value
Women	148	100	
Mean age	32.2	31.1	0.1
BMI	25.5	24.8	0.17
Smoking	11	5	0.45
Previous miscarriage	90 (60%)	50(50%)	<0.01
Previous birth	36(24%)	37(37%)	<0.01

## 5. Reproductive outcome

Patients	Septum Resection	Expectant management	OR
Women	148	100	
Life birth	51%	71 %	<b>0.71 (0.49-1.04)</b>
Ongoing Pregnancy			<b>1.00 (0.52-1.96)</b>
Pregnancy loss	33%	28%	<b>1.43 (0.77-2.67)</b>
Preterm Birth	90 (60%)	50(50%)	<b>1.35 (0.58-3.16)</b>
Fetal Malpresentation			<b>0.54 (0.23-1.29)</b>

No difference

## 6. Sub-analyses in women with pregnancy loss

Patients	OR
Life birth	1.02 (0.46-2.25)
Ongoing Pregnancy	1.24 (0.55-2.76)
Pregnancy loss	<b>2.61 (1.16-5.88)</b>
Preterm Birth	1.35 (0.58-3.16)
Fetal Malpresentation	0.54 (0.23-1.29)

Higher repeat loss in surgery group

## 7. Sub-analyses in women with subfertility

Patients	OR
Life birth	1.15 (0.34-3.92)
Ongoing Pregnancy	1.53 (0.48-4.80)
Pregnancy loss	1.11 (0.34-3.59)
Preterm Birth	1.25 (0.24-6.55)
Fetal Malpresentation	0.44 (0.10-1.95)

No difference

# Take Home Message

- in women with a septate uterus septum resection does not lead to improved fertility and pregnancy outcomes compared to expectant management.
- RCT is needed
- Awaiting those results septum resection should not be performed

