

Eclampsia in the Netherlands is not similar to Eclampsia in the UK

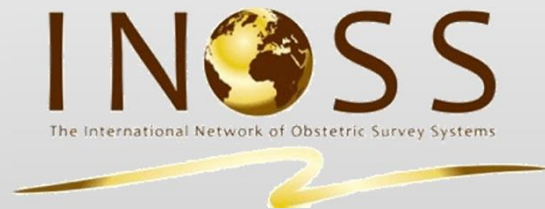
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Roma, 5th March 2015

Eclampsia, a comparison within the International Network of Obstetric Surveillance Systems (INOSS)

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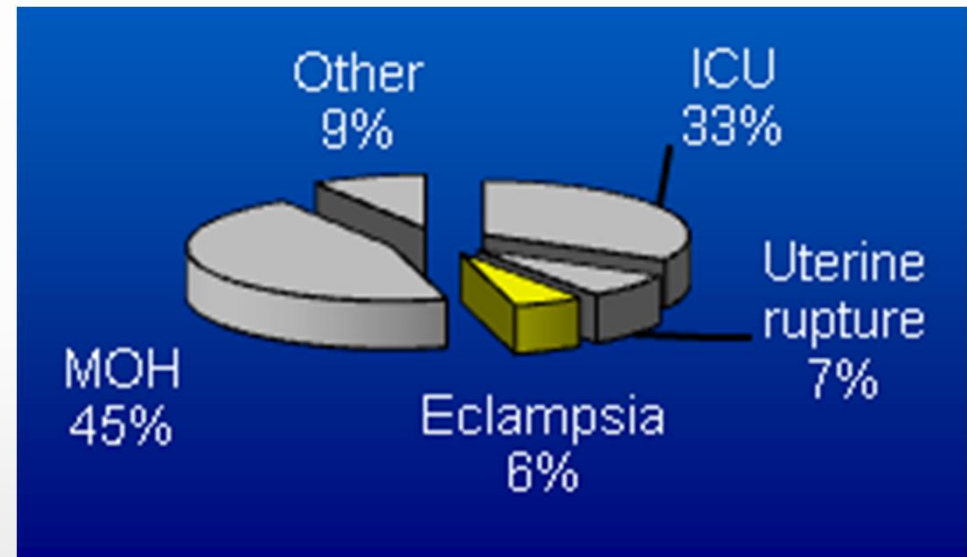


Maternal morbidity – LEMMoN study

2004 - 2006

ÇLEMMoN

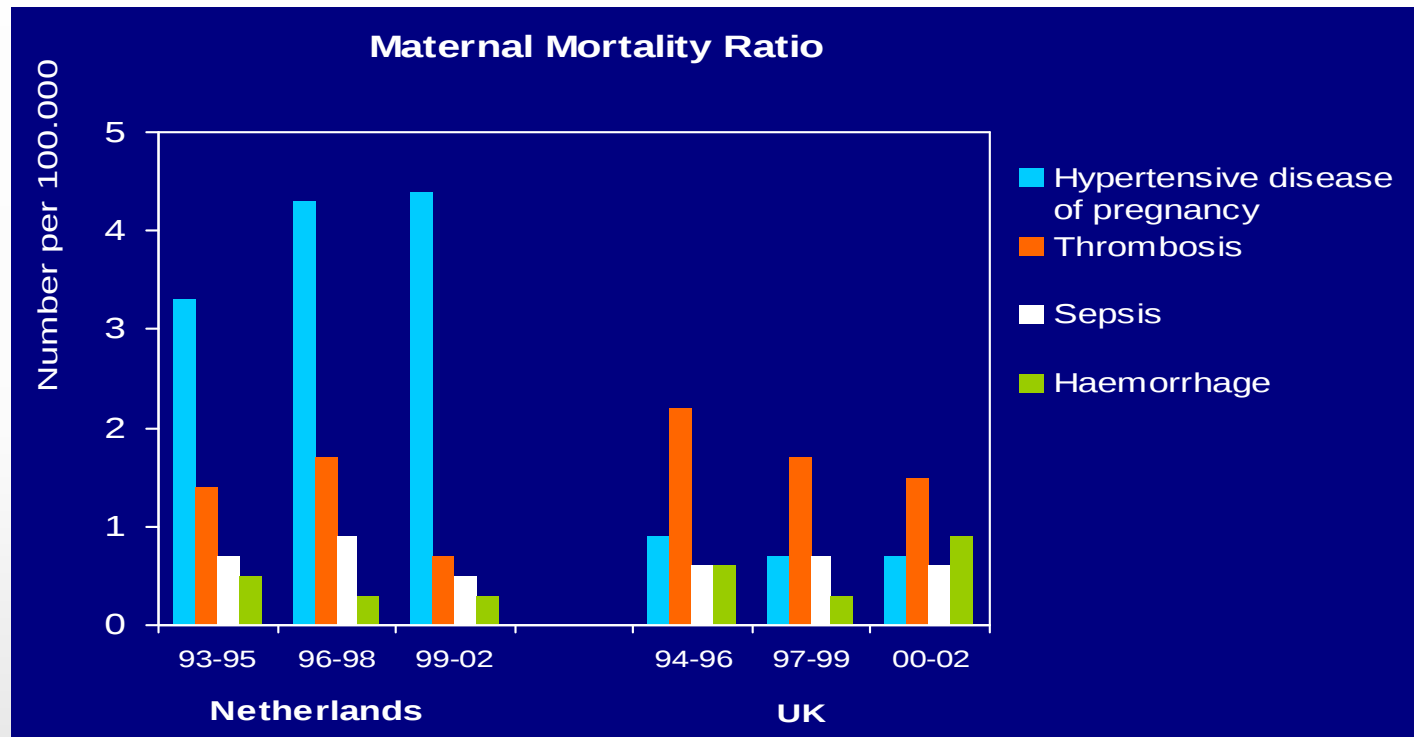
- Ç Uterine rupture
- Ç Eclampsia
- Ç M obstetric haemorrhage
- Ç ICU



ÇMonthly mail

- Ç 371 000 pregnancies
- Ç Incidence of SAMM: 7.1 per 1000 (0.71%)
- Ç Incidence of Eclampsia: 6.2 / 10 000 deliveries

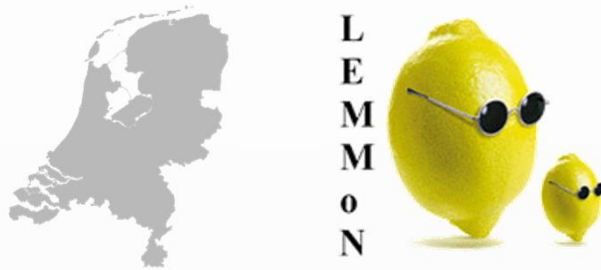
Eclampsia - International perspective



- Different definitions
- Patient characteristics
- Management strategies



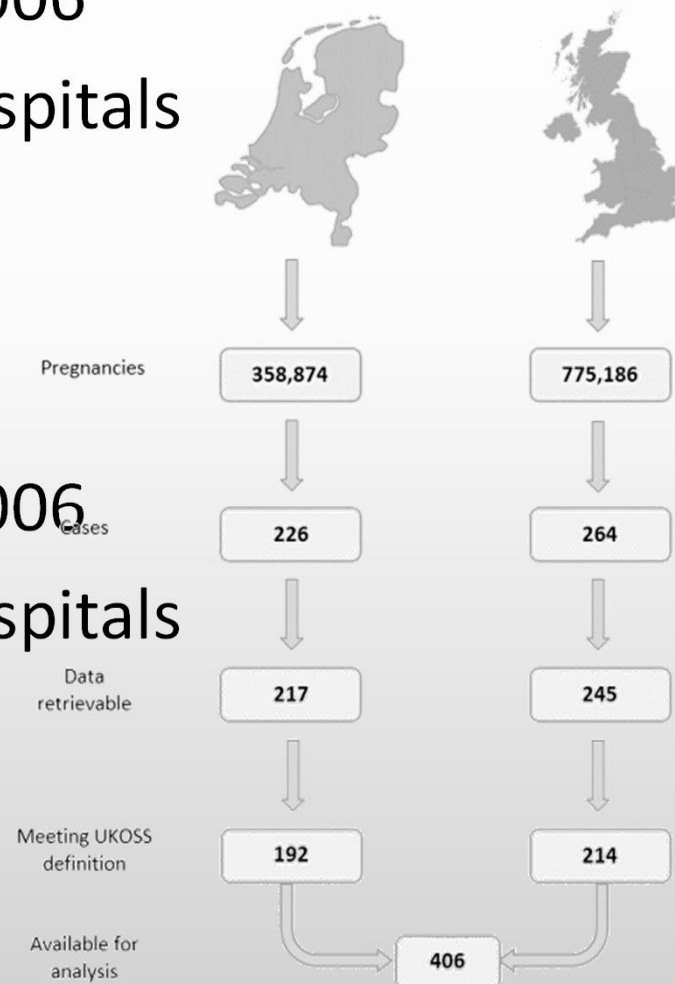
Eclampsia, a comparison within the International Network of Obstetric Surveillance Systems (INOSS)



Ç2004 - 2006
Ç100% hospitals



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Eclampsia, a comparison within the International Network of Obstetric Surveillance Systems (INOSS)

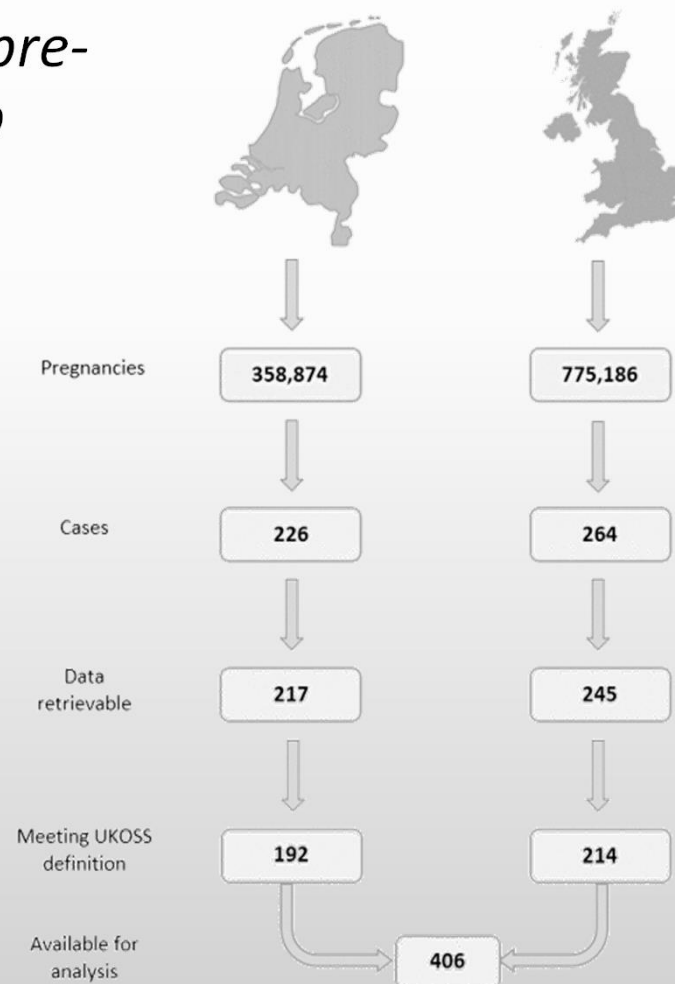


Eclampsia superimposed on pre-eclampsia not attributable to other causes



Any women with convulsions during pregnancy untill 10d postpartum with 2 or more:

- Ç hypertension
- Ç Proteinuria
- Ç Thrombocytopenia
- Ç Raised ALT/AST



INOSS Uniform Definition Difficulties

Using UKOSS definitions led to the
exclusion of 30 LEMMoN cases
Dutch incidence fell from 6.2 to 5.4 per
10.000



Case no. 742 - Mss. I. NOSS

Ç G1P0, 33 years

Ç Current pregnancy

Ç Pregnancy following ICSI

Ç Reduction from a triplet → twin pregnancy

Ç Delivery

Ç Spontaneous start of labour at GA 38w

Ç 2x Spontaneous delivery

Ç 4 hours post delivery: eclampsia

Ç RR 160/100 mmHg

Ç Lab: platelet's 107, ASAT 36, ALAT 34 (uric acid: 0.43)

Ç Proteinuria: unknown

Ç Therapy: Stesolid; MgSO₄; Nepresol

Case no. 742 - Mss. I. NOSS

UKOSS

Any women with convulsion(s) during pregnancy or the first 10 days postpartum, together with at least two of the following features

- Ç Hypertension (booking <90 , RRd max >90 mmHg AND RRd increment ≥ 25 mmHg)
- Ç Proteinuria (stick + OR $\geq 0,3$ g/24hr)
- Ç Thrombocytopenia ($<100 \times 10^9/L$)
- Ç Raised plasma ALT (≥ 42 iu/L) OR AST (≥ 42 iu/L)

Reason for exclusion

- Ç Non-severe lab results
- Ç Unknown proteinuria

Case no. 573

Ç G1P0, 32 years

Ç Current pregnancy

Ç Uncomplicated antenatal checks

Ç booking blood pressure: 120/78mmHg

Ç GA 40+5

Ç Pregnancy Induced Hypertension: 150/95mmHg, headaches, no proteinuria

Ç GA 41+1

Ç 165/105mmHg, headaches, oedema, trace of proteinuria (+/-)

Ç no laboratory data

Ç eclampsia

Ç Spontaneous labour → emergency caesarean (fetal demise)

Ç After CS: recurrence of eclampsia → intubated

Ç 1 day post delivery: 110/50

Case no. 573

UKOSS

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- Ç Thrombocytopenia ($<100 \times 10^9/L$)
- Ç Raised plasma ALT (≥ 42 iu/L) OR AST (≥ 42 iu/L)

Reason for exclusion

- Ç Non-severe proteinuria
- Ç Unknown lab data

Case no. 2557

Ç G1P0, 29 years

Ç Current pregnancy

Ç Uncomplicated antenatal checks

Ç Booking RRd 82mmHg

Ç Delivery

Ç Spontaneous labour at GA 39+5

Ç Transferred to hospital for pain relief. No PE complaints

Ç Max blood pressure 190/105mmHg

Ç Proteinuria: +

Ç Laboratory: normal

Ç eclampsia during dilation

Ç Stesolid, mgso4, Nepresol

Ç Spontaneous delivery

Case no. 2557

UKOSS

Any women with convulsion(s) during pregnancy or the first 10 days postpartum, together with at least two of the following features

- Ç Hypertension (booking <90 , RRd max >90 mmHg AND RRd increment ≥ 25 mmHg)
- Ç Proteinuria (stick + OR $\geq 0,3$ g/24hr)
- Ç Thrombocytopenia ($<100 \times 10^9/L$)
- Ç Raised plasma ALT (≥ 42 iu/L) OR AST (≥ 42 iu/L)

Reason for exclusion

- Ç No RRd increment of ≥ 25 mmHg

Case no. 114

Ç G2P1, 26 years

Ç Obstetric History: spontaneous delivery

Ç Current pregnancy

Ç uncomplicated

Ç Spontaneous labour at home (midwife led home delivery)

Ç During labour (@ home)

Ç headaches, visual complaints → eclampsia

Ç During transport to hospital: RR 180/100mmHg, retrograde amnesia

Ç At admission

Ç Started on MgSO₄

Ç Full dilation

Ç Instrumental vaginal delivery, daughter 2990, AS 8/9

Ç RR 200/100

Ç PPH 1500 cc

Ç no urine of laboratory results

Case no. 114

UKOSS

Any women with convulsion(s) during pregnancy or the first 10 days postpartum, together with at least two of the following features

- Ç Hypertension (booking <90, RRd max >90mmHg AND RRd increment ≥ 25 mmHg)
- Ç Proteinuria (stick + OR $\geq 0,3$ g/24hr)
- Ç Thrombocytopenia ($<100 \times 10^9/L$)
- Ç Raised plasma ALT (≥ 42 iu/L) OR AST (≥ 42 iu/L)

Reason for exclusion

- Ç Unknown proteinuria
- Ç Unknown laboratory results

Incidence



Incidence	5,4 / 10,000	2,7 / 10,000	<0,001
recurrent eclampsia	46 (24%)	54 (25,7)	0,730
Maternal age	30 (18-42)	25 (15-55)	<0,001
Multiple pregnancy	19 (9,9%)	9 (4%)	0,030
Smoking	16 (8%)	38 (18%)	0,005
BMI (>30 kg/m ²)	15 (7,8%)	32 (15.0%)	0,029
Pre-existing hypertension	12 (6.3%)	8 (3,7%)	0,261

Signs & symptoms



PE before eclampsia	80 (42%)	91 (43%)	0,920
Diastolic blood pressure >110 (mmHg)	111 (70-164) 130 (68%)	95 (50-141) 90 (42%)	<0,001 <0,001
Lowest platelet count (x 10 ³ /mm ³ ; median)	106 (7-385)	176 (26-612)	<0,001
ASAT (U/L; median)	84 (14-3193)	46 (5-1264)	0,013
Proteïnuria (g/L/24hr; median)	5,0 (0-94) [n=107]	1,8 (0-11) [n=16]	0,268

Management



MgSO ₄ prophylaxis	19 (9,9%)	12 (5,6%)	0,134
PE prior to E	9 (4,7%)	9 (4,2%)	0,807

Management



MgSO ₄ prophylaxis	19 (9,9%)	12 (5,6%)	0,134
PE prior to E	9 (4,7%)	9 (4,2%)	0,807
MgSO ₄ treatment	181 (94,7%)	211 (98,6%)	0,026

Management



MgSO ₄ prophylaxis	19 (9,9%)	12 (5,6%)	0,134
PE prior to E	9 (4,7%)	9 (4,2%)	0,807
MgSO ₄ treatment	181 (94,7%)	211 (98,6%)	0,026

Anti-hypertensives	31 (16,1%)	151 (70,9%)	<0,001
blood pressure >110 (mmHg)	31 (23,8%)	56 (62,2%)	<0,001

Management



Delivery	37 + 5 (22-42)	38+0 (19-42)	0,628
PE prior to E	37+3 (22-42)	37+1 (24-42)	0,721

Induction & CS	154 (80,2%)	162 (75,7%)	0,279
antepartum eclampsia	72 (37,5%)	96 (44,8)	0,583
primary CS	29 (15,1%)	20 (9,3%)	0,838

Management



E – delivery interval (min)			
intra partum	60	48	0,168
ante partum	420	160	0,008
CS	240	127	0,006
Vaginal	1800 (30u)	779 (12u)	0,003

Management



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intra partum	60	48	0,168
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CS	240	127	0,006
Vaginal	1800 (30u)	779 (12u)	0,003

Outcome



Outcome			
Maternal death	3	0	0,054
Cerebro vascular accident (/10,000)	1,95	0,65	0,059
Perinatal death	9 (4,3%)	5 (2,2%)	0,276

Summarised

Ç Difference in casemix

Ç NL: *more multiple pregnancies; higher maternal age*

Ç NL: *higher highest diastolic blood pressure*

Ç Difference in management

Ç NL: *less anti-hypertensives*

Ç NL: *less MgSO₄ treatment*

Ç NL: *longer Eclampsia-Delivery Interval*

Ç Stricter adherence to existing guidelines

Present and future



Netherlands Obstetric Surveillance System

Ç 1 september 2013

Ç *Eclampsia*

Ç *Cardiac Arrest*

Ç *Amniotic fluid embolism*

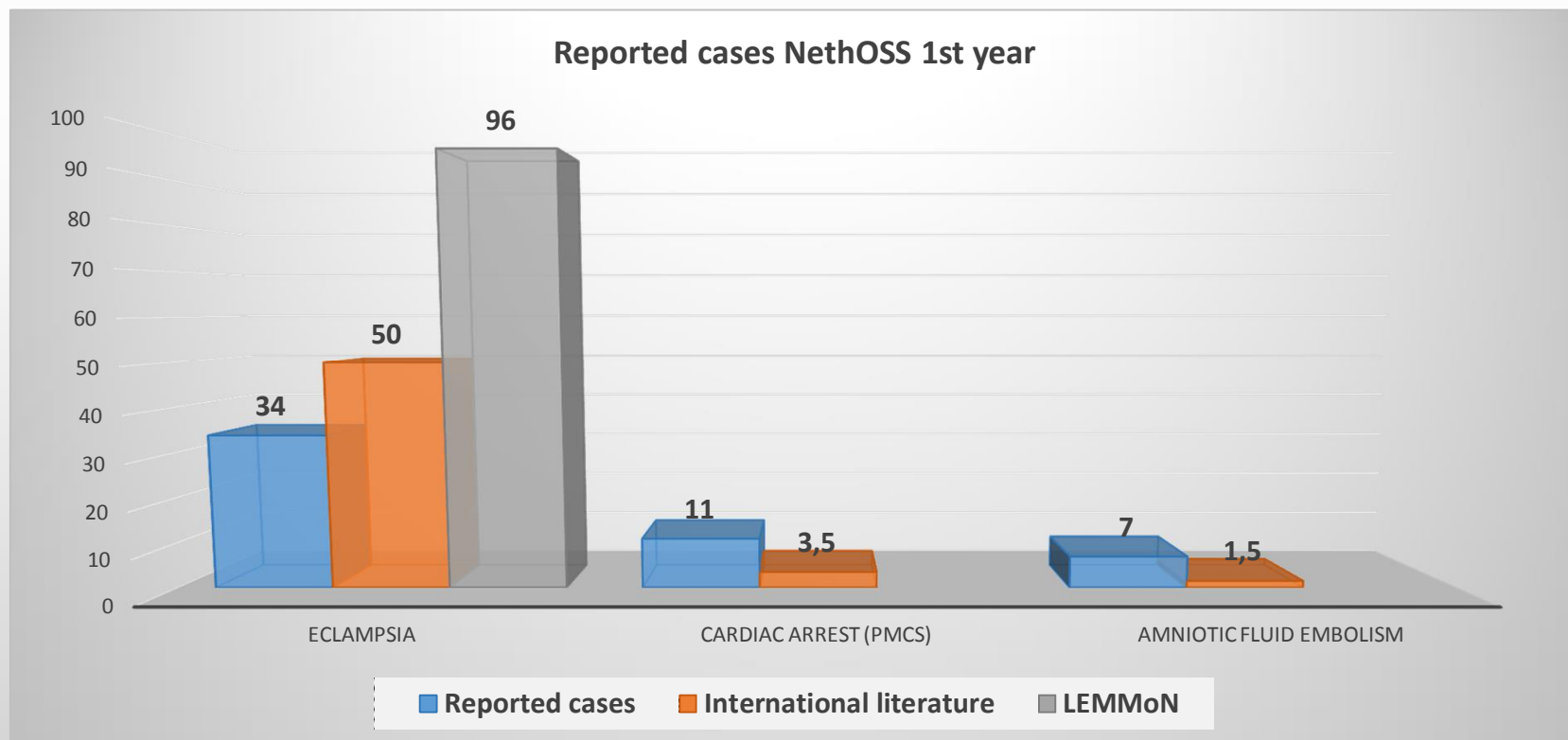
Ç 2 years



NethOSS
TO THE FUTURE
www.nethoss.nl

Sneak-peak

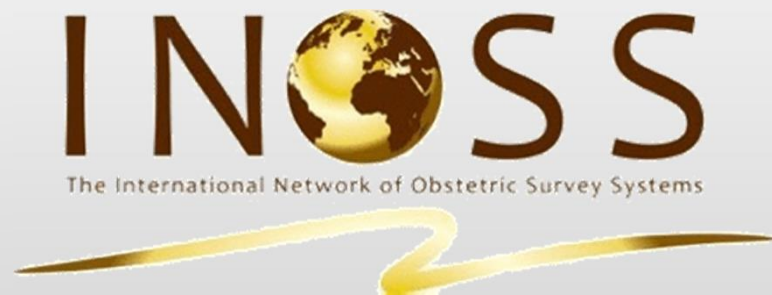
Ç100% participation



So,

ÇContinuous measurements

ÇInternational comparison



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