



# The Impact of Obesity and Obesity Treatment on Fertility and Fertility Therapy

Collaboration in Practice



3<sup>rd</sup> Annual National Obesity Collaborative Care Summit  
September 17, 2016

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# Disclosures

- I have no conflicts of interest and nothing to disclose related to this presentation.

# 2<sup>nd</sup> Annual National Obesity Collaborative Care Summit

September 2015

# Infertility as an indication for bariatric surgery?

- Shanu Kothari, Minimally Invasive Surgery/Bariatric Surgery (ASMBS)
- Kathy Hoeger, Reproductive Endocrinology and Infertility (ASRM)
- Michelle Kominiarek, Maternal-Fetal Medicine (ACOG)

# Obesity – Fertility – Metabolic Surgery

- What is the current status?
- What are the gaps?
- How can we move the issues forward?
  
- 3 organizations
  - ASMBS, ASRM, ACOG
  
- Next step - Conversations with our organizations

# Collaborators

- Shanu Kothari (Bariatric surgeon)
- Julie Kim (Bariatric surgeon)
- Ann Rogers (Bariatric surgeon)
- Kathy Hoeger (REI)
- Emily Jungheim (REI)
- Michelle Kominiarek (MFM)
- Scott Kahan (Obesity Medicine)
- John Morton (Immediate Past-President ASMBS)
- Kara Kallies (Gunderson Health)



# Approach

## Infertility/Obesity/Metabolic Surgery

- Review of currently available literature
  - Obesity and obesity treatment on fertility and fertility therapy
- Goals
  - Provide objective information regarding the impact of obesity and obesity treatment on fertility and fertility therapy

# Outline

- Definition of pre-pregnancy obesity
- Prevalence of obesity in reproductive aged women
- Overview normal fertility
- Reversible risk factors for infertility (underweight, smoking, excessive ETOH, obesity)
- Obesity effects on female reproductive cycle/fertility
  - PCOS and insulin resistance
- Effect of obesity on fertility therapy (infertility treatment)
- Male partner obesity and fertility
- Weight loss and female fertility
- Weight loss and fertility therapy (infertility treatment)



# Current Status

- Clinical Issues Committee of ASMBS
- Committee on Gynecology Practice of ACOG
- The Obesity Society
  
- Goal for publication in:
  - Surgery for Obesity and Related Diseases



# Timeline

# Conclusions

- There is a very high prevalence of obesity among women of childbearing age.
- Obesity in women is associated with an increased risk of infertility as well as increased rate of complications during every stage of pregnancy.
- Obesity is associated with PCOS and IR, which also negatively impacts fertility.
- Overall, however, there is a paucity of high-level evidence regarding the impact of obesity and obesity treatment on fertility and infertility treatment.
- Ongoing investigation and randomized controlled trials are necessary to fully understand the role of obesity and the impact that medical and surgical treatments for obesity have on male and female fertility and infertility treatment outcomes.

# Recommendations

- Obesity is associated with a significant delay in conception that is in part, but not entirely due to an impact on normal ovulation.
- Obesity reduces male fertility parameters and should be considered in the evaluation of a couple presenting with infertility.
- The symptoms of PCOS, particularly with respect to fertility and metabolic disturbance, are exacerbated in the presence of obesity.
- Weight loss can improve weight-associated causes for infertility such as PCOS and IR.

# Recommendations

- Obese women have a lower probability of achieving live birth after in vitro fertilization
- Bariatric surgery is effective in achieving significant and sustained weight loss in morbidly obese women and has been shown in case control studies to improve fertility.
- Pregnancy is not recommended during the rapid weight loss phase after bariatric surgery, therefore, counseling and follow-up regarding contraception during this period is important.
- The specific impact of either medical weight loss treatments or bariatric surgery on the responsiveness to subsequent treatments for infertility in both men and women is not clearly understood at this time.



# Next steps

# Questions?

# Thank You