

# Kingston Health Sciences Centre

Centre des sciences de  
la santé de Kingston



Hôpital  
Hotel Dieu  
Hospital



Hôpital Général de  
Kingston General  
Hospital

Kingston Reproductive Centre

Virtual Teaching Visit

## Superovulation & Intrauterine Insemination

Prepared by Dr. Bryden Magee, MD FRCSC 2020



# Learning Objectives

- Become familiar with the process of superovulation & intrauterine insemination (SO/IUI)
- Outline the stages of SO/IUI
- Review medications and side effects
- List the risks of SO/IUI
- Discuss next steps



# Overview of SO/IUI

## ■ SUPEROVULATION

- Fertility drugs stimulate 2-4 egg follicles at a time

## ■ MONITORING

- Ultrasound and bloodwork is used to monitor your response

## ■ SPERM WASHING

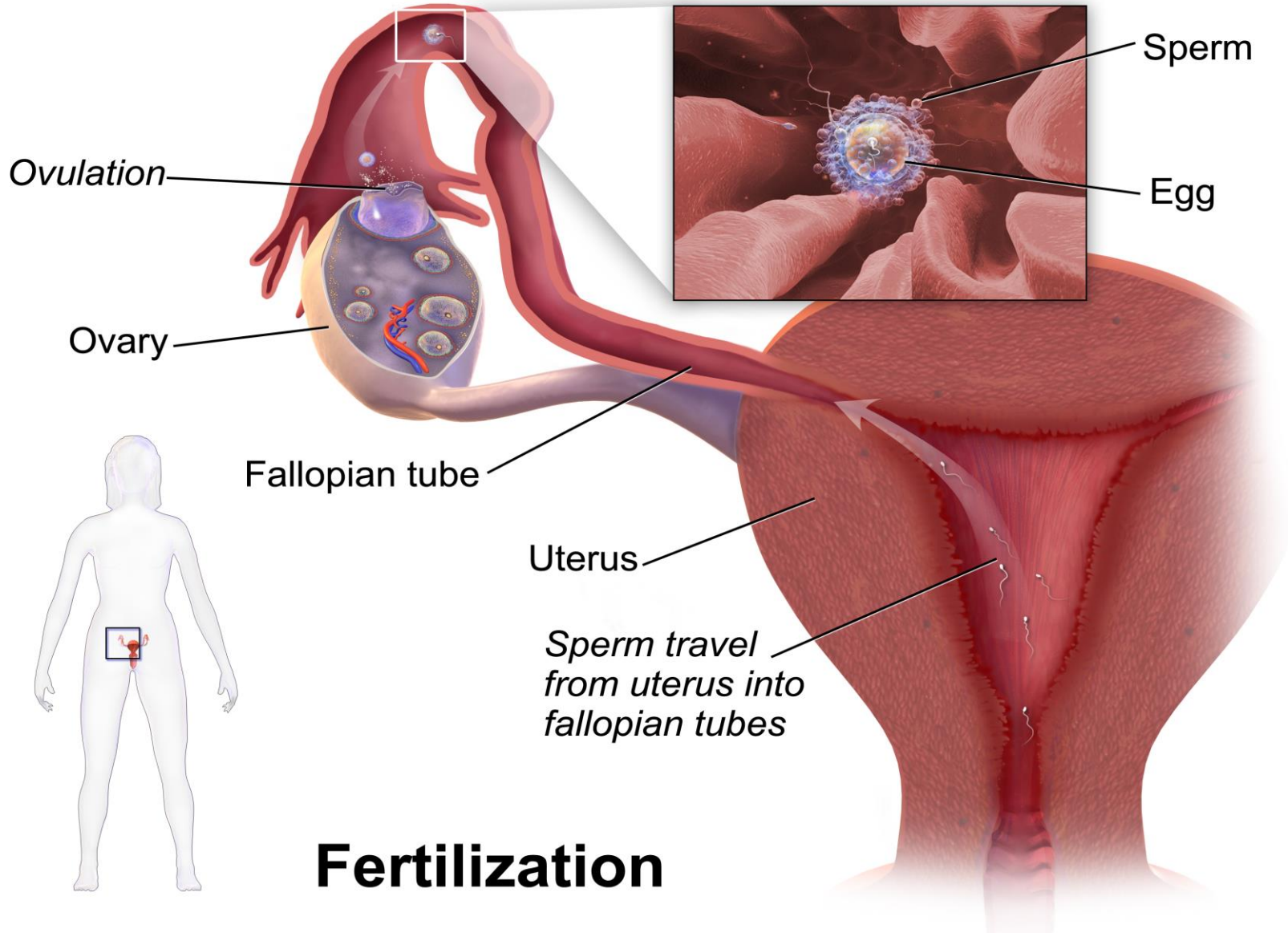
- Semen is processed in the lab just prior to ovulation

## ■ INSEMINATION

- Sperm is placed in the uterus so fertilization can occur naturally



# Fertilization



# Fertilization



# Medications



# Medication side effects

- Letrozole
  - Hot flashes, night sweats, headache, mood changes, dizziness or tiredness
  - Bloating, pelvic pain or vaginal dryness
  - Sometimes, a thinner uterine lining is seen on ultrasound
- Injectable medications
  - Bloating, fatigue, pelvic pain, injection site reaction
- Refrain from intense exercise and the use of ibuprofen



# Treatment monitoring

- **Day 1 = First day of full menstrual flow**
- Letrozole should be taken for 5 days, beginning on day 3 of your cycle
- Injectables start on day 2, 3 or 4 of your cycle
- Ultrasound and bloodwork is used to monitor your ovarian response to medication beginning day 7-10 of cycle



# Monitoring







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# Ovulation Trigger

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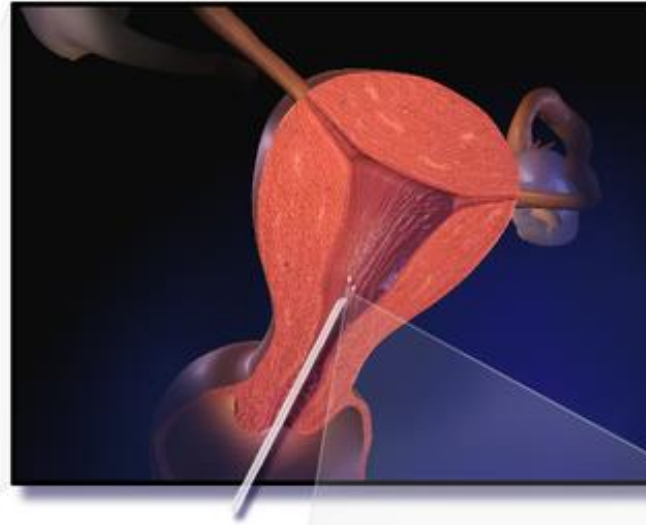
- Sometimes, women start to ovulate on their own when the egg follicles are ready
- Sometimes, medication is needed to trigger ovulation
- Depending on the results of your urine test or bloodwork, you will be instructed if Ovidrel<sup>®</sup> is needed
- In general, Ovidrel<sup>®</sup> should be taken at 10pm and insemination will occur about 36-40hrs later



# Intrauterine Insemination

- If your reproductive partner is the sperm provider, than the semen needs to be produced by masturbation on the morning of insemination
- The semen should be kept at body temperature and dropped off at Flowlabs on the 5<sup>th</sup> floor of KGH within 1 hour of collection
- Once the semen is received by Flowlabs, it will be “washed” to separate, concentrate and activate the sperm





# Intrauterine Insemination

- Change into gown
- Confirm identity
- Speculum examination
- Placement of small catheter into uterus to deposit sperm

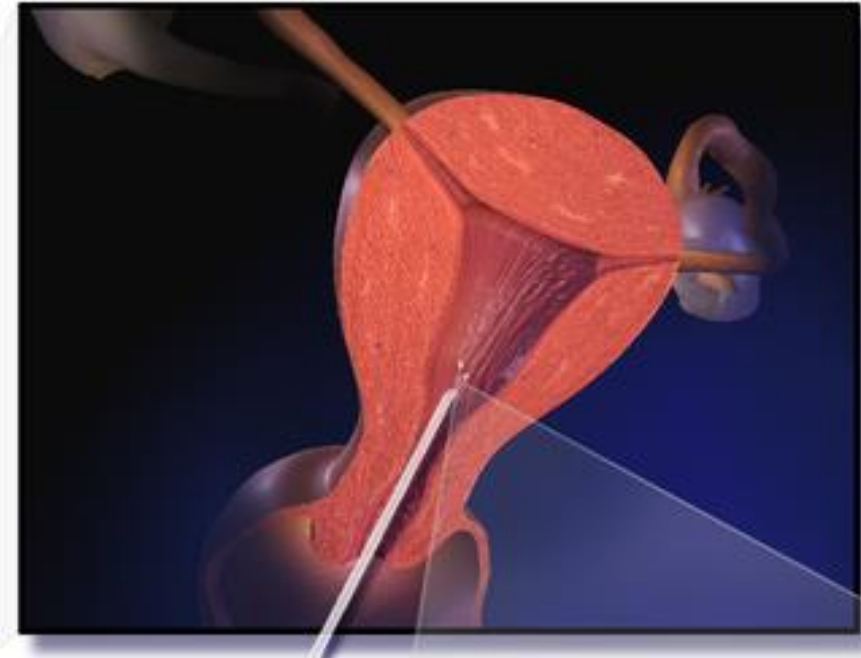


# Next Steps

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- After insemination, rest for 10-15 minutes
- Pregnancy test 2 weeks later
- Questions or concerns?  
Follow up with your doctor





### Risks of Superovulation

- Twins (8-15%), Triplets (1-3%)
- Cycle cancellation for over-stimulation

### Risks of Intrauterine Insemination

- Pain or bleeding
- Infection
- Prostaglandin reaction



# Injectable medication teaching videos

Gonal-F (DIN:02270404)

- [https://fertility.mymomentum.ca/content/healthcare/biopharma/mymomentum/en\\_CA/gonalf-pen/resources.html](https://fertility.mymomentum.ca/content/healthcare/biopharma/mymomentum/en_CA/gonalf-pen/resources.html)

Ovidrel (DIN 02371588)

- [https://fertility.mymomentum.ca/content/healthcare/biopharma/mymomentum/en\\_CA/ovidrel-pen/resources.html](https://fertility.mymomentum.ca/content/healthcare/biopharma/mymomentum/en_CA/ovidrel-pen/resources.html)

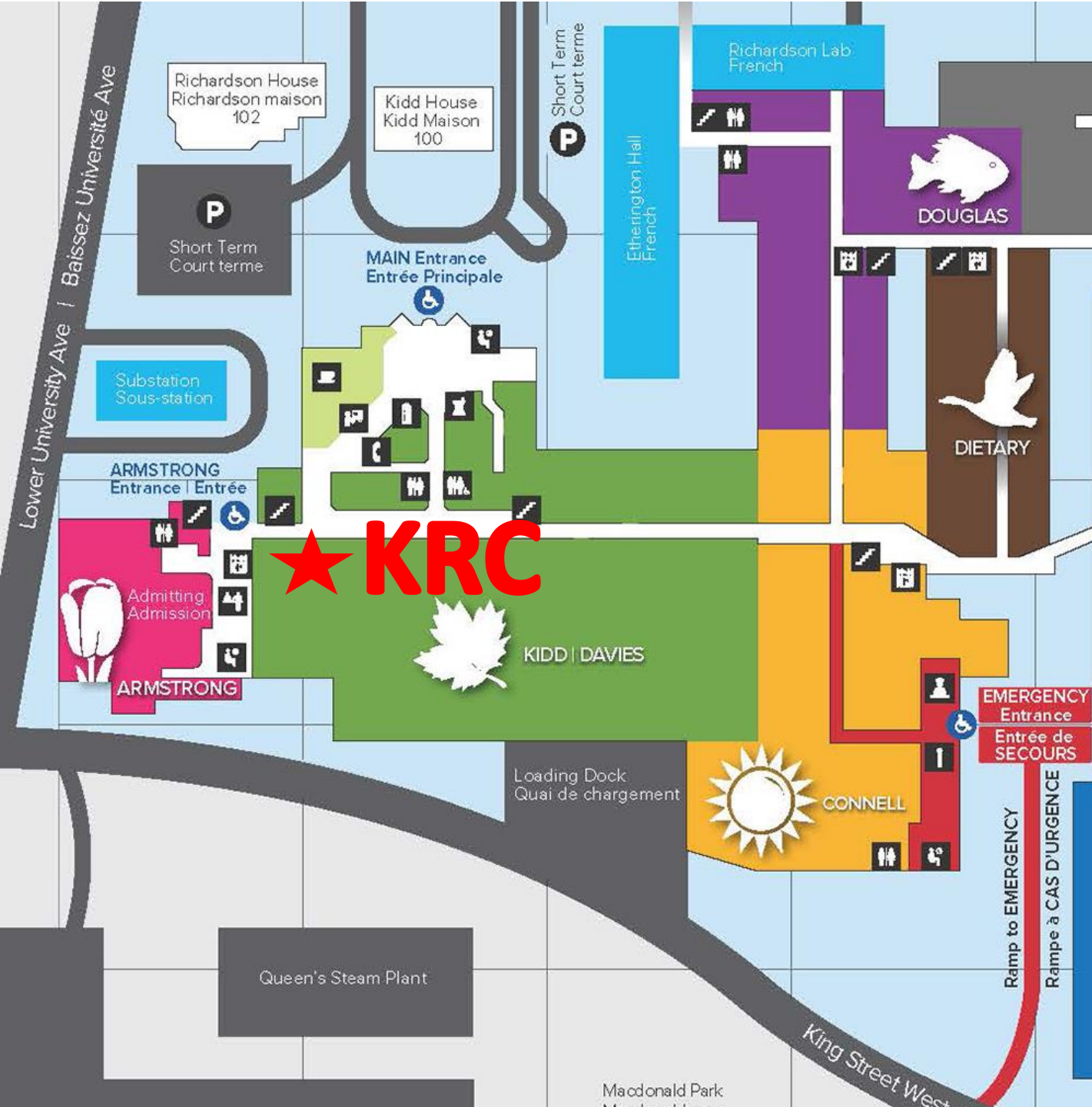
Menopur (DIN 02283093)

- <https://www.ferringfertility.com/products/menopur/>

Endometrin (DIN 02334992)

- <https://www.ferringfertility.com/products/endometrin/>





## KRC Hours

Monday- Friday:

7am-3pm

Weekends and Holidays:

Monitoring and  
inseminations are still  
performed

**Pharmacies with fertility  
medications in stock**

Clinic Pharmacy

Main Lobby KGH

Medical Arts Pharmcy

800 Princess St



# Contact Information for the Kingston Reproductive Centre

## 613-548-1353

If leaving a message, be sure to:

- Speak clearly
- Leave first and last name
- Leave your phone number so we can call you back





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Thank you!