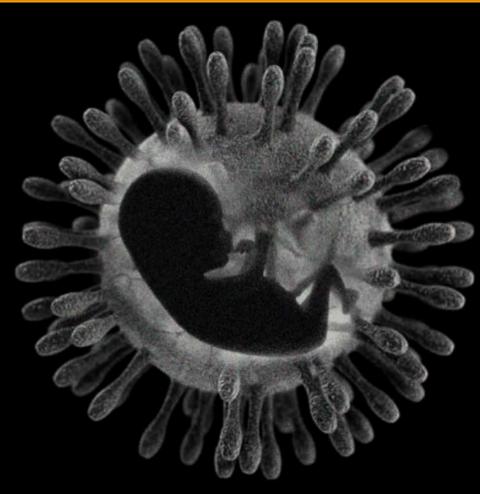


COVID-19: POTENTIAL WAYS TO RATIONALIZE THE PROVISION OF ULTRASOUND RESOURCES

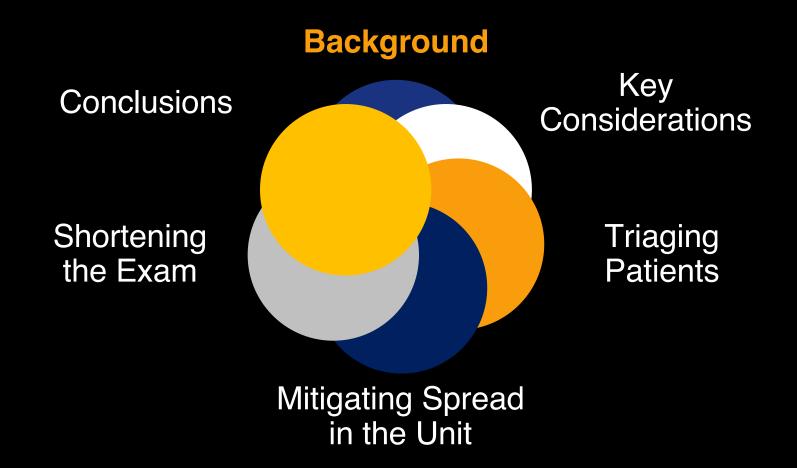
Reem S. Abu-Rustum MD University of Florida



https://www.theatlantic.com/family/archive/2020/03/giving-birth-during-coronavirus-pandemic/608320



OBJECTIVES





GOALS IN PANDAMIC

PANDAMIC

Prioritize Medical Resources

Avoid Exposure

Minimize to Strict Necessity



Steve Nesius/Reuters

WE ARE AT VARIOUS LEVELS OF COVID-19 INFECTIVITY



https://abcnews.go.com/Politics/miami-mayors-message-spring-breakers-amid-coronavirus-pandemic/story?id=69697779



The World Health Organization called the COVID-19 viral disease a pandemic Wednesday. Here, workers in Spain place a medical mask on a figure that was to be part of the Fallas festival in Valencia. The festival has been canceled over the coronavirus outbreak.

Alberto Saiz/AP

https://www.npr.org/sections/goatsandsoda/2020/03/11/814474930/coron avirus-covid-19-is-now-officially-a-pandemic-who-says



UNIQUE CONSIDERATIONS TO THE ULTRASOUND EXAM

- Close proximity between patient and healthcare worker
- Long duration for the exam
- Enclosed space
- Various national and international protocols



ABILITY TO MODIFY, RESCHEDULE and CANCEL THE EXAM

Depends on

- Local regulations
- Staff shortages
- Patient risks and co-morbidities



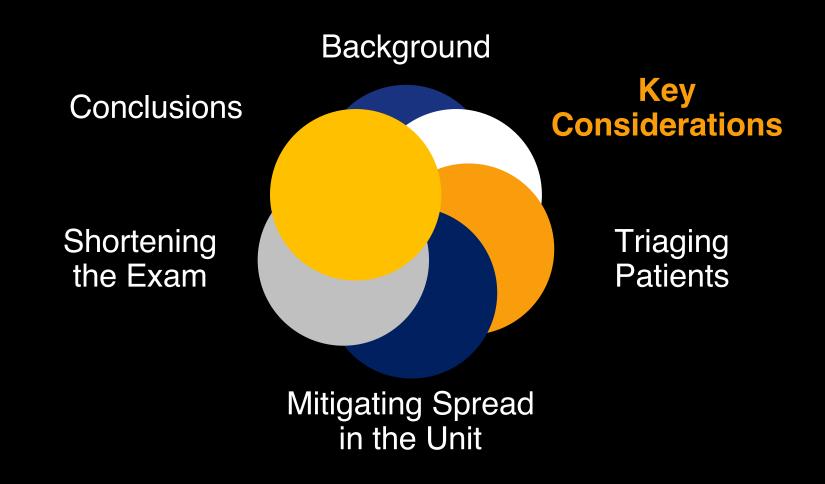
WHAT WILL BE PRESENTED

CONSENSUS STATEMENTS

NOT GUIDELINES

 TO BE ADAPTED/MODIFIED ACCORDING TO THE STATUS AT THE VARIOUS SETTINGS









- Prioritizing care
- Reducing patient volume
 - To enhance social distancing
 - Increase staff availability



THE 3-TIER APPROACH TO TYPES OF SCANS

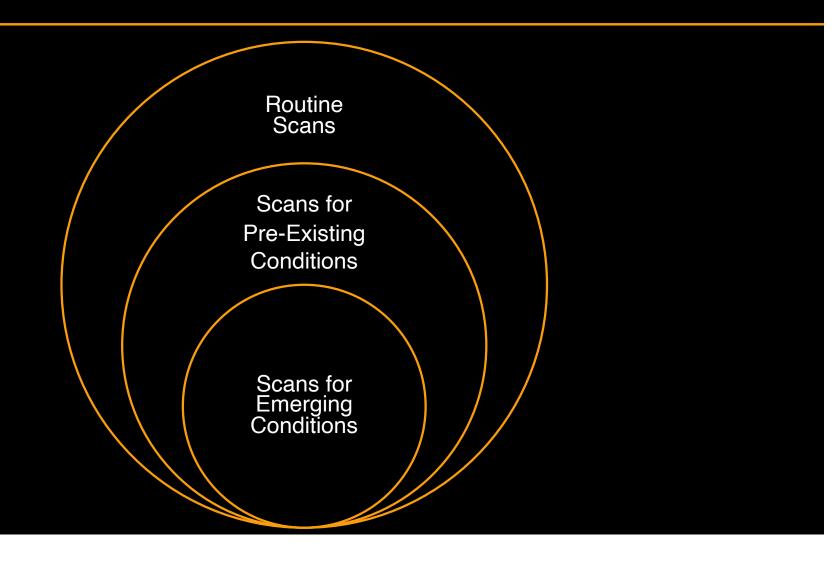
No Delay

May be Delayed

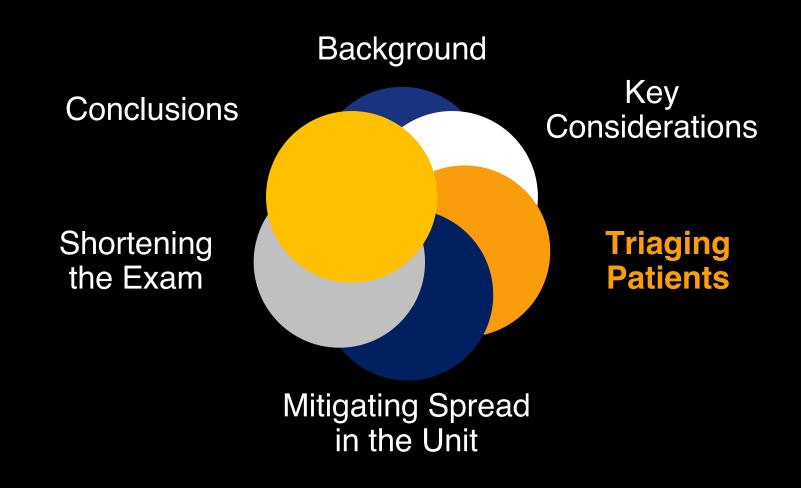
May Cancel for the Duration of the Pandemic



MUST DISTINGUISH BETWEEN









MUST TAKE INTO CONSIDERATION

- Local prevalence of COVID-19 and regulations
- Limitations in capacity and staff
- Limitations in PPE
- Patient COVID-19 status and co-morbidities



COVID-19 RECOMMENDATIONS

Ultrasound



- Pregnant patients with known TOCC risk factors and those with mild or asymptomatic COVID-19 infection should delay routine ultrasound assessment by 14 days.
- For suspected, probable or confirmed cases of COVID-19 patients, when appropriate, carry out an ultrasound assessment of fetal growth and AFI with UmA Doppler (if necessary). A bedside scan is preferred.
- Women with suspected/probable COVID-19 infection, or those with confirmed infection who are asymptomatic or recovering from mild illness, should be monitored for fetal growth and AFI with UmA Doppler (if necessary) every 2-4 weekly.
- The pregnancy should be managed according to the clinical and ultrasound findings.
- If the infection is acquired during the first or early second trimester of pregnancy, a detailed morphology scan at 18–24 weeks of gestation is indicated.

www.google.com



COVID-19 RECOMMENDATIONS

Dating Ultrasound:

- Combine dating/NT to one ultrasound based on LMP
- If ultrasound earlier in the first trimester (e.g., less than 10 weeks) is indicated due to threatened abortion, pregnancy of unknown anatomic location, may consider foregoing NT ultrasound and offering cell free DNA screening for those desiring early aneuploidy screening
- For patients with unknown LMP or EGA>14 weeks may schedule as next available

Anatomy Ultrasound (20-22 weeks)*

- Consider follow up views in 4-8 weeks rather than 1-2 weeks**
- Consider stopping serial cervical length after anatomy u/s if transvaginal cervical length≥35mm, prior preterm birth at >34 weeks
- BMI>40: schedule at 22 weeks to reduce risk of suboptimal views/need for follow up

Growth Ultrasounds

- All single third trimester growth at 32 weeks
- Follow up previa/low lying placents at 34-36 weeks.



COVID-19 RECOMMENDATIONS

4. Modifications for services

4.1 Capacity

Trusts will have differing capacity issues as the pandemic evolves. The advice is to continue with usual national screening programmes as specified for as long as possible. If the service is only able to provide a single scan, it is recommended that this is performed at 18+° to 20+° weeks with the option of the quadruple test for women who wish to be screened for trisomy 21. The anomaly scan is the screening test for trisomy 18 and 13 in this instance.

4.2 Staffing numbers

Daily discussion should be scheduled with senior team members with oversight of the pathway to review service provision. In the event that there is insufficient staff to provide the service, scans should be prioritised in the following order:

- Anomaly scan at 18+0-23+0 weeks
- Ultrasound +/- screening at 11+2-14+1
- Growth scans

If, for any reason, an ultrasound examination is not possible the quadruple test can be offered based on the Last Menstrual Period (LMP) between 14+2 to 20+9 weeks.

Although the performance of the quadruple test with scan measurements is marginally better than without a scan, quadruple testing using LMP remains an acceptable screening test in this instance.

4.3 Additional measures

Triage growth scans

To reduce the workload to the ultrasound screening unit a local policy should be implemented to review all referrals for a growth scan prior to booking an appointment.

RCOG: Guidance for antenatal screening and ultrasound in pregnancy in the evolvingcoronavirus (COVID-19) pandemic https://mail.google.com/mail/u/0/#inbox/WhctKJVqssDhrxcwJMpTQGTIBKVwNKNZQbDWpTZgHLtqgdMZRVVJjflNhRqqLLWDszPjNSq?compose=DXDwSWwwsfrVKNQhMtlcpB WtSBjqTCWgQhkgJzlvsWnbKhtcXmszHXhFxKwGTlhRhnwNSqFMpFsfkGhHtCcQKBzDpPLtSfxCCNWfcWJXLpBFrWIFHpcgCVrg&projector=1&messagePartId=0.1.1



THE 3-TIER APPROACH TO PRIORITIZING CARE

COVID-19
Patient

Pre-Existing/Emerging
Co-Morbidities
Asymptomatic Patient
+/- TOCC

Low-Risk
Asymptomatic Patient
+/- TOCC



LOW RISK PATIENT

Scan	Asymptomatic	Symptomatic and/or TOCC Screen +
11-13+6 weeks	YesOffer NIPT or serum screening	 No Offer NIPT or serum screening Reschedule after quarantine at 16-18 weeks
18-23 weeks	• Yes	 Reschedule after quarantine in 2-3 weeks
Growth	Cancel	Cancel



PATIENT WITH PRE-EXISTING/ EMERGING CO-MORBIDITIES

Scan	Asymptomatic	Symptomatic and/or TOCC Screen +
11-13+6 weeks	YesOffer NIPT or serum screening	 No Offer NIPT or serum screening Reschedule after quarantine at 16-18 weeks
18-23 weeks	• Yes	Reschedule after quarantine in 2-3 weeks
Growth	 Reduce frequency 28-34 wks 	Reschedule after quarantine in 2-3 weeks





Scan	Outpatient	Hospitalized
11-13+6 weeks	 Cancel Offer NIPT or serum screening If within GA window reschedule in 2 weeks 	 Perform at bedside Offer NIPT or serum screening
18-23 weeks	 Reschedule in 3-4 weeks following recovery 	Perform at bedside
Growth	Reduce frequency 28-34 wks	 Growth ever 4 weeks or earlier based on findings



OTHER SPECIALIZED SERVICES

Cervical Assessments Fetal Echo Multiple Gestation Invasive **Procedures** Antenatal **Testing** Genetic Counseling







MITIGATING SPREAD

- Pre-screen
- Space appointments
- Combine visits
- Limit visitors
- Space seats
- Follow ISUOG Guideline for cleaning/preparing the unit
- No observers in rooms
- Masks depending on local guidelines and availability
- Use Telehealth
- Designate a room for suspected/infected patients

Upcoming ISUOG Consensus Statement for Organization of Obstetrical, Fetal Medicine and Gynecological Ultrasound Services in the Context of COVID-19
Upcoming ISUOG Safety Committee Position Statement: The safe performance of scans in obstetrics and gynecology and equipment cleaning in the context of COVID-19







SHORTENING THE EXAM

Telehealth

Clips/Offline Measurements

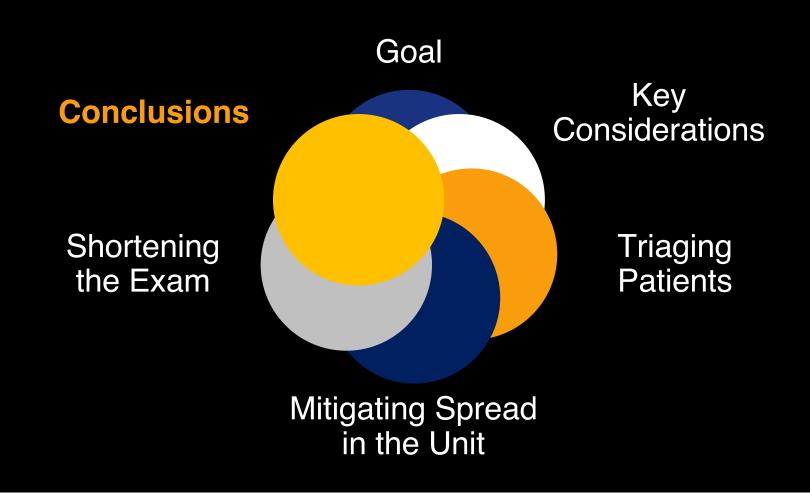
> Modify Technique/ Content

Experienced Sonographer

Minimize Unnecessary Conversation

> Prepare Room

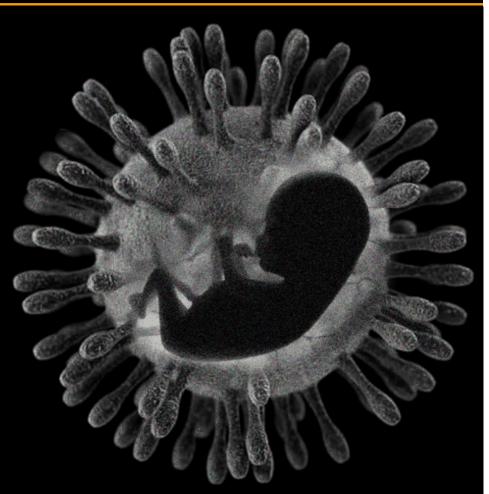






CONCLUSION

- Rapidly changing highly variable state
- No existing guidelines: consensus based
- The sonographic exam has its inherent risks
- Adhere to safety recommendations
- Minimize and shorten exposure
- Triage based on local status, staff availability and patient co-morbidities



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I THANK YOU FOR YOUR ATTENTION



Every success story is a tale of constant adaptation, revision and change."

Richard Branson

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