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Morning Brief : Scientific Review

1 May 2020

The purpose of the Morning Brief is to **summarize** and present key information, research articles and other relevant publications pertaining to critical care and COVID-19. We aim to prioritise information, articles and publications released in the preceding 24-48hours.

Stellenbosch University Research Response Team

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From the beginning of May, the Morning Brief will be released Mondays, Wednesdays and Fridays. During May we will also transition to more contributions from specialists on themes relevant to their fields.

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Global data

Total Confirmed

3,247,648

Confirmed Cases by Country/Region/Sovereignty

1,053,036 US

239,639 Spain

205,463 Italy

172,478 United Kingdom

166,628 France

162,123 Germany

Total Deaths

230,615

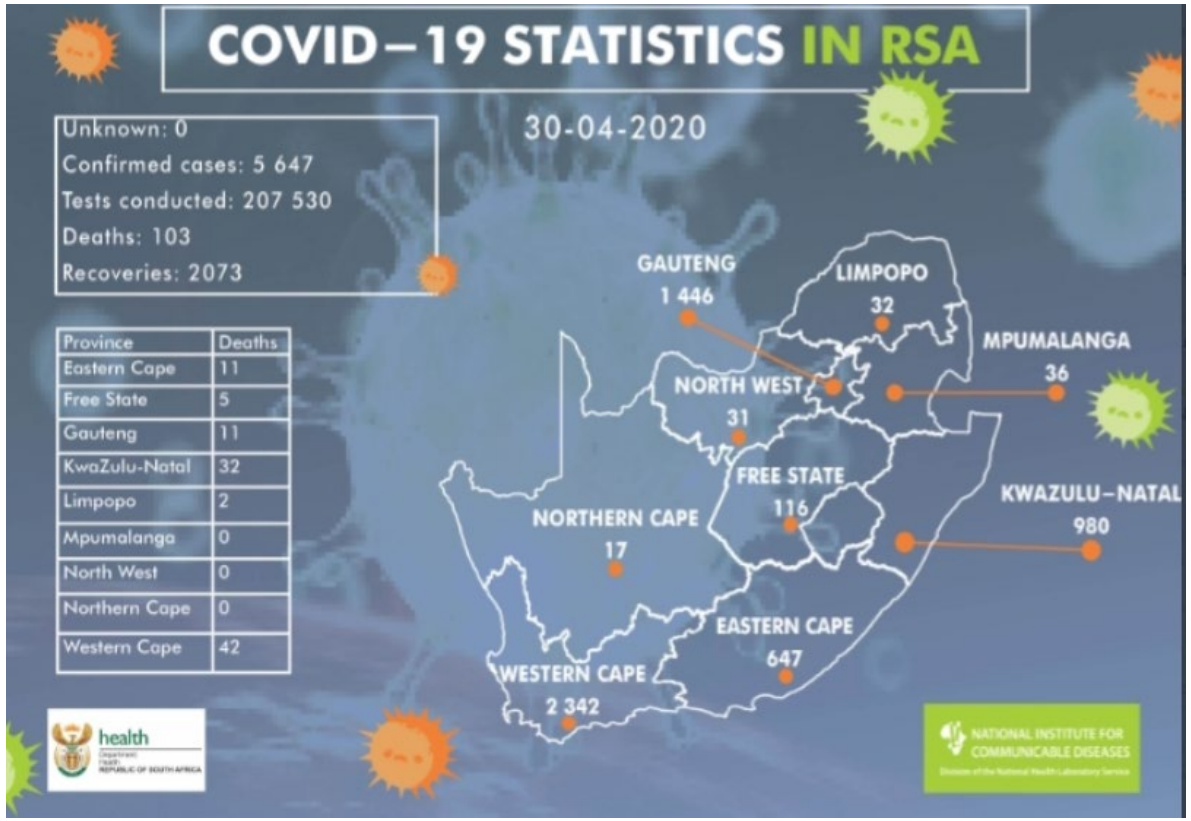
27,967 deaths
Italy

26,771 deaths
United Kingdom

24,543 deaths
Spain

https://coronavirus.jhu.edu/map.html Johns Hopkins Coronavirus Resource Map Accessed 30 April 2020

South African update



35 days of national lockdown with Level 5 restrictions, from May 1st restrictions to ease as Level 4 is introduced.

National cases: 5647

Increased of 297 cases from 29 April 2020

Over 10 000 tests done in the last 24 hours

Western Cape first province to have over 2000 cases

Source: https://www.nicd.ac.za/ Accessed 20h00 30 April 2020

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Content

Changes Surgical and Anaesthesia Care During COVID pandemic preparedness

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BJS Review

Global guidance for surgical care during the COVID-19 pandemic

COVIDSurg Collaborative*

CUTTING EDGE

- Staff Training
  - Reducing patient transfers between hospitals
  - Need and proper use of PPE
- Hospital Response to C19
  - Reduce non-urgent surgical services
    - ↓ clinics, endoscopy, and elective operations
    - Risk of laparoscopic surgery?
    - Deployment of staff to help with critical care
- Emergency Surgical Care
  - Emergency surgical conditions in COVID persons
    - Traumatic fractures, acute appendicitis, ruptured ectopic pregnancies
    - Screening and identifying C19 symptoms pre and post operatively
    - Possible post-op respiratory complications
  - ICU related surgical complications such as mesenteric ischemia, acute limb ischemia, perforated ulcers, need for tracheostomy

Methodology

- 13 articles and 13 interviews with surgeons and anesthesiologists treating COVID patients
- Mostly expert opinions

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ANNALS OF SURGERY
A MONTHLY REVIEW OF SURGICAL SCIENCE SINCE 1885

COVID-19 preparedness within the surgical, obstetric and anesthetic ecosystem in Sub Saharan Africa

- SSA limited resources with poverty, malnutrition, HIV, TB which might make CFR higher
- Essential and emergency surgery already limited so context different than in HICs
  1. Have clear plan about what services to still offer
  2. Decrease exposure to health care staff
     - Separate COVID + OT
     - Limited and most senior anesthesiologists to intubate
     - Filters, clean surfaces with 70% EtOH, anesthesia circuits
     - Conserve PPE, Clean N95 mask in dry oven-do not wash
     - laparoscopy
  3. Repurposing of OR as ICU beds risky
     - Median ICU stay 13 days
  4. Maintain staff wellness
     - Challenging triage situations

Methodology

- 28 surgeons and anesthesiologists from Africa and HIC
- Mostly expert opinions and recommendations from HIC professional bodies

Changes in Surgical Practice in South African Hospitals for COVID-19 Preparedness: A National Survey

ASSA The Association of Surgeons of South Africa

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Objective

- to describe changes in the surgical care in SA hospitals in response to Covid-19 preparedness

Methods:

- Cross sectional study online administered through the Association of Surgeons in South Africa
- Study population: Surgeons working in South African hospitals

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ASSA The Association of Surgeons of South Africa

Changes in Surgical Care

Elective Operations (cancelled or reduced)	98%
New Surgical Outpatient Visits (cancelled or reduced)	95%
Surgical wards partially re-purposed for COVID preparation	83%
Operating Room Repurposed as ICU Ventilated Beds	62%
Routine post-operative visits cancelled	37%
Cancer Operations (cancelled or reduced)	32%

Preliminary Results

- 132 respondents from 100 hospitals
  - 30% public hospitals
  - 70% private hospitals

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Outcomes of Surgery on COVID19 infected patients

- TBH participating in an international trial (COVIDSurg) to determine 30 day mortality in COVID19 patients undergoing operative care.
- 1,700 clinicians representing >800 hospitals across 98 countries have registered to participate.
- Ongoing

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Conclusions

- The long and medium impact of COVID19 on surgical patients and surgical services will remain unknown until the end of the epidemic.

- However, the concern is that access to surgical care will be greatly reduced especially for diagnosis and treatment of non-life threatening conditions.

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References

1. COVIDSurg Collaborative, Global guidance for surgical care during the COVID-19 pandemic, BJS, 15 April 2020, DOI: 10.1002/bjs.11646
2. Ademuyiwa, AO et al., COVID-19 preparedness within the surgical, obstetric and anesthetic ecosystem in Sub Saharan Africa, Annals of Surgery, 2020; 10.1097/SLA.0000000000003964. doi:10.1097/SLA.0000000000003964

This summary was prepared by

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