

The COVID experience at the University Hospital of Novara

Agility and innovation to drive response to COVID-19

Andrea Capponi MD

Chief Medical Officer – University Hospital – Novara, Italy



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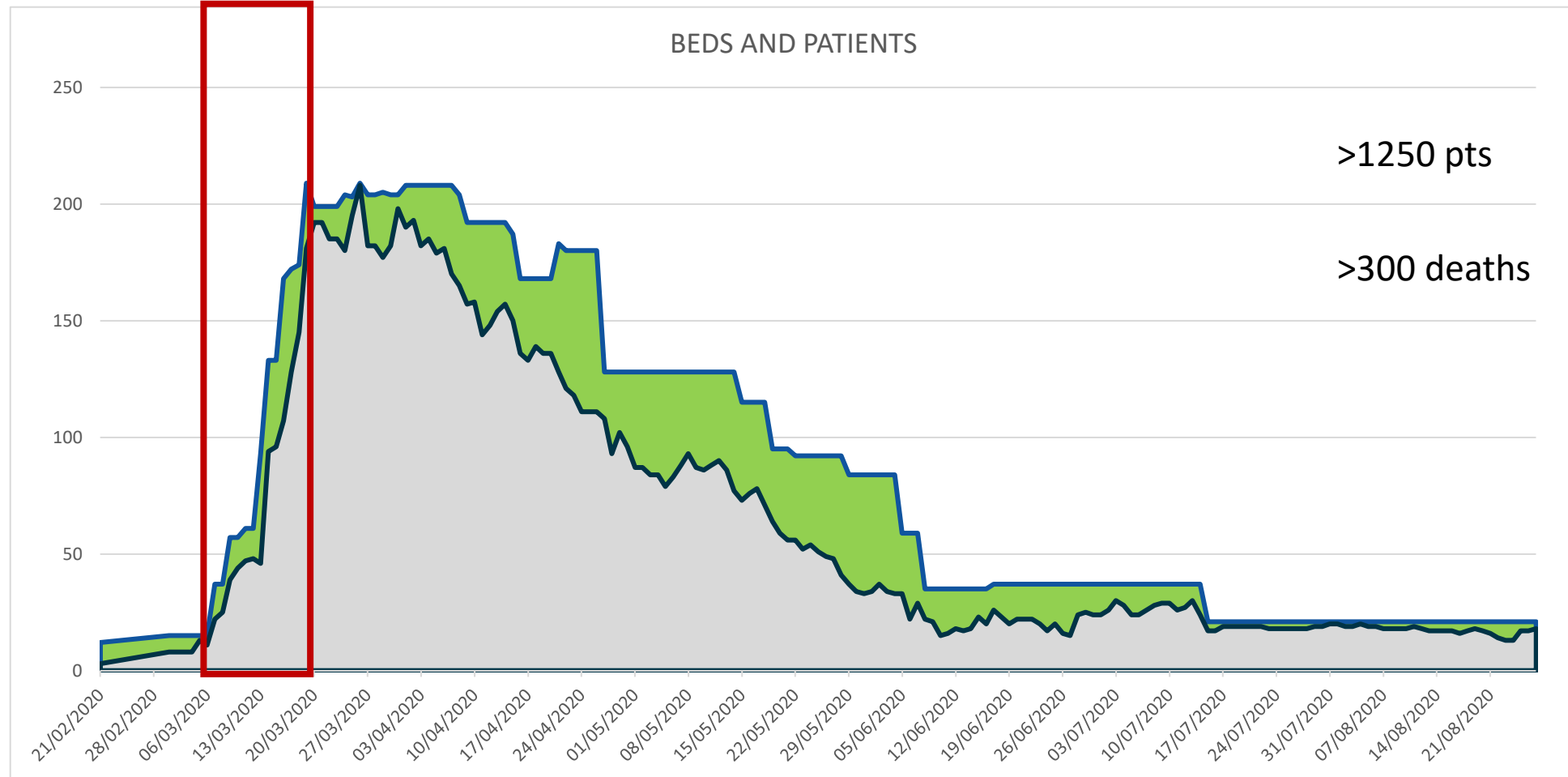
#IHFCOVIDForum

UNIVERSITY HOSPITAL – NOVARA, ITALY



- Second largest Hospital in our Region (Piedmont)
- Hub to 7 spoke (900.000 people)
- Teaching Hospital (University)
- Border hospital (40km from Milano, different Region)
- 3 sites
- 750 beds 108 ambulatories
- 69 Medical Units - 23 Operating Rooms – All disciplines - KidnTspl
- 300mln budget, 2582 employees
- 34k admissions – 2,4mln outp services – 85k ED accesses

THE OUTBREAK OF COVID-19



THE OUTBREAK OF COVID-19



| DATE | BASE | SUB | ICU | TOT BEDS | INF | ICU | TRAUMA | PRIV | TR-OR | TR-SUB | NEURO | MED | ORL | SUBCS | ORCS | ORS | VASC |
|----------|------|-----|-----|----------|-----|-----|--------|------|-------|--------|-------|-----|-----|-------|------|-----|------|
| 01/03/20 | 12 | 0 | 3 | 15 | 12 | 3 | | | | | | | | | | | |
| 02/03/20 | | | | 15 | 12 | 3 | | | | | | | | | | | |
| 03/03/20 | | | | 15 | 12 | 3 | | | | | | | | | | | |
| 04/03/20 | | | | 15 | 12 | 3 | | | | | | | | | | | |
| 05/03/20 | | | | 15 | 12 | 3 | | | | | | | | | | | |
| 06/03/20 | | | | 15 | 12 | 3 | | | | | | | | | | | |
| 07/03/20 | 25 | 0 | 12 | 37 | 12 | 12 | | 13 | | | | | | | | | |
| 08/03/20 | | | | 37 | 12 | 12 | | 13 | | | | | | | | | |
| 09/03/20 | 45 | 0 | 12 | 57 | 12 | 12 | 20 | 13 | | | | | | | | | |
| 10/03/20 | | | | 57 | 12 | 12 | 20 | 13 | | | | | | | | | |
| 11/03/20 | 45 | 0 | 16 | 61 | 12 | 12 | 20 | 13 | 4 | | | | | | | | |
| 12/03/20 | | | | 61 | 12 | 12 | 20 | 13 | 4 | | | | | | | | |
| 13/03/20 | 65 | 12 | 16 | 93 | 14 | 12 | 23 | 14 | 4 | 12 | 14 | | | | | | |
| 14/03/20 | 103 | 14 | 16 | 133 | 14 | 12 | 21 | 14 | 4 | 14 | 24 | 30 | | | | | |
| 15/03/20 | | | | 133 | 14 | 12 | 21 | 14 | 4 | 14 | 24 | 30 | | | | | |
| 16/03/20 | 130 | 14 | 24 | 168 | 14 | 12 | 21 | 14 | | 14 | 24 | 30 | 27 | | 7 | 5 | |
| 17/03/20 | 130 | 18 | 24 | 172 | 14 | 12 | 21 | 14 | | | 24 | 30 | 27 | 18 | 7 | 5 | |
| 18/03/20 | 132 | 18 | 24 | 174 | 14 | 12 | 21 | 14 | | | 24 | 32 | 27 | 18 | 7 | 5 | |
| 19/03/20 | 167 | 18 | 24 | 209 | 14 | 12 | 37 | 14 | | | 27 | 34 | 27 | 18 | 7 | 5 | 14 |

14days

+194beds

+7 wards + 7OR + 1corridor

WHAT WE LEARNED - capacity

FEBRUARY 2020 – 1st wave

- We didn't expect so many pts (few beds)
- We didn't expect such a violent outburst (dramatic opening of new wards)(corridor to ward in 5 days)
- We didn't plan a COVID hospital

NOVEMBER 2020 – 2nd wave

- We don't want many pts (but we have a plan up to 3 wards)
- We don't expect a violent outburst (we have a much more organized territory – contact tracing)
- Area Agreement for COVID hospital (filter – base – subintensive – ICU)

WHAT WE LEARNED - organization

FEBRUARY 2020 – 1st wave

- Patient pathways defined (January) needed an update
- Guidelines on the use of PPE (March 6th - transmission not known)
- Doctors and nurses on a voluntary base. Too many sick.
- Set-up of new wards naïve (facilities layout planning, clean pathways, stock of PPE)

NOVEMBER 2020 – 2nd wave

- Patient pathways defined – access control
- PPE guidelines education and training
- Personnel recruitment plan
- Kit and checklist for new wards opening
- Prepared to a second lockdown

WHAT WE LEARNED - procedures

FEBRUARY 2020 – 1st wave

- Few basic procedures

NOVEMBER 2020 – 2nd wave

- Admission - discharge
- Peculiar areas (Pediatrics, Dialysis, OBGY, Psychiatrics, Emergency, Fragile pts)
- Contact tracing (pts and ops)
- Morgue
- Patient goods, communication
- Monitoring (admissions, PPE,..)
- Psicologic support
- More...

THE MOST USEFUL TOOLS

- **DECISION SUPPORTING SYSTEM**
 - Steering committee – daily at noon
 - Dashboard – admission, discharge, drugs, tech, PPE
 - Forecast support – growth and decrease of the wave
- **DOCUMENTATION**
 - Open site where to collect all the provisions
 - Neat and clean, tidy and updated: quick access to the information
 - Openness: literature, confrontation
- **COMUNICACION**
 - Mailing list of all the corporate e-mail
 - Whatsapp groups

THE MOST USEFUL TOOLS

SCUOLA DI MEDICINA

SCUOLA DI SPECIALIZZAZIONE IN MEDICINA INTERNA

Direttore: Chiar. mo Prof. Mario Pirisi

TESI DI SPECIALIZZAZIONE

MODELLING HOSPITAL BED NECESSITY FOR COVID-19 PATIENTS DURING THE DECLINE PHASE OF THE EPIDEMIC TRAJECTORY STUDIO SPERIMENTALE

Relatore: Chiar. mo Prof. Mario PIRISI

Candidato: dott. Eyal Hayden

CONTACT

Andrea Capponi MD

Chief Medical Officer – University Hospital – Novara, Italy

www.maggioreosp.novara.it

andrea.capponi@maggioreosp.Novara.it