LIVING WITH COVID

SCOTT TWADDELL

RESPIRATORY AND GENERAL PHYSICIAN

JOHN HUNTER HOSPITAL/ HNE

COVID EXPERIENCE IN HNE

- NOT like the Western Sydney experience
  - Why?
- “The secret of war lies in communication” Bonaparte
- Learning by doing and making mistakes

USUAL COVID SYMPTOMS - DELTA

- Patients present later with this variant (D8-10 vs D4-6)
- Headache
- Arthralgia/ Myalgia
- Fever
- Laryngitis
- Dyspnoea +/- chest pain
- *Gastrointestinal symptoms – nausea/ vomiting/ diarrhoea

BASIC TREATMENT

- Inhaled budesonide (Pulmicort) 800mcg bd
  - STOIC trial
    - < 7 days of mild symptoms – 14 days or until admission
    - 139 pts – 10/70 (plac) vs 1/69 (Rx) developed significant COVID
    - NNT 8
- Symptomatic treatment generally
  - Hydration
  - Antiemetics
  - Simple analgesics
  - Cough treatments

RED FLAGS & TRIGGERS FOR ADMISSION

- High risk pts (unvacc) – Lung, heart, DM, obese, CKD, ATSI
- Most people deteriorate from respiratory function perspective
  - Chest may be clear to auscultation
  - SpO2 > 92% (or 88% for chronic lung disease/ NMD/ CO2 retainers)
- Dehydration (IV fluid)
- Antiemetics (Ondansetron)
- Analgesia (Paracetamol up)
- Cough treatments (Codeine)

DETERIORATION

- SpO2 <92%
- Supplemental O2 up to 4L → HFNP → CPAP → int/vent → ECMO
- O2 N/P 4L + prone positioning ≥ 5hrs/ day
- HFNP 40L/ 40%
- CPAP 10cmH2O + FiO2 0.6 (8-10L)

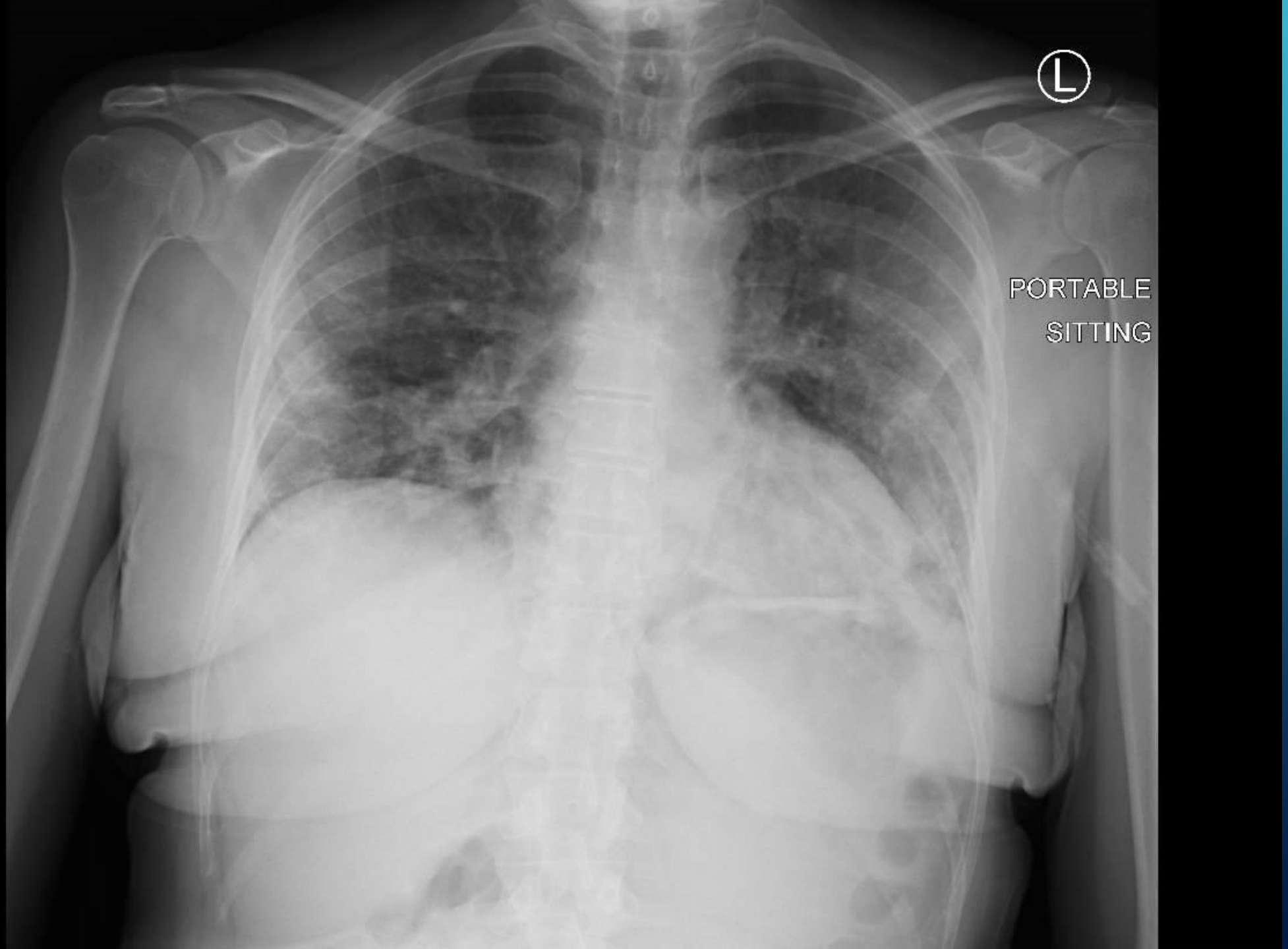
EVIDENCE/ GUIDELINES FOR TREATMENTS

- Budesonide 800mcg bd (STOIC, PRINCIPLE trials)
- Dex 6mg dly x 10/7*, Rem dly x 5/7, bari 4mg dly x 10/7* (HNE COVID Mx guideline – intranet)
- Prone > 5 hrs/ day (PRONA-COVID, others)
- CPAP vs HFNP vs O2 via mask (Perkins et al. MedRx)
  - CPAP clearly better
  - NNT 12 for CPAP & 151 for HFNP
- NP up to 4L (SpO2 92-96%*)
  - HF for comfort; no more than FiO2 0.4
- CPAP – start PEEP 10-12cmH2O
  - Titrate FiO2 to maintain SpO2 92-96%; start 4L
- https://covid19evidence.net.au

CASE STUDY - 51F

- BIBA from home in the lower Hunter Valley (D9)
- COVID Swab +ve 10/8
- Isolating at home
  - 2 daughters +ve
  - Husband and son –ve
- Worsening dyspnoea, lethargy, rigors, dizziness and cough
- No myalgias, HA, N&V but diarrhoea that morning
- First mRNA vaccine 5/8
- No significant medical B/G

- NSWAS
  - P 110, T 38.1, RR30, SpO2 88% R/A → 95% on O2 (?)
- JHH F2
  - P92, T 37, RR21, SpO2 94% on 1L
  - Chest clear, HS DNM, abdo SNT
  - Commenced budesonide 400mcg 2 puffs bd, proph. Enoxaparin, symptomatic Rx
- Clinical R/V 2200hrs
  - O2 requirement increasing – SpO2 94% on 4L
  - Added dexamethasone 6mg daily po & ceased budesonide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PORTABLE
SITTING

DAYS (A2/D11-A3/D12)

- A2 0900hrs - Mild chest tightness
  - RR28, SpO2 97% on 4L, afebrile
  - Chest – diffuse crackles
  - Added remdesivir x 5/7 (availability)

- A3 1200hrs - Increasing O2 requirement
  - SpO2 93-96% Hudson @ 8L
  - Bilateral crackles
  - Commenced baricitinib x 10/7*
    - Increase O2 as needed
    - D/W ICU re deterioration – to monitor
    - Self prone as much as possible

A3/ D12 1930HRS – A4/D13

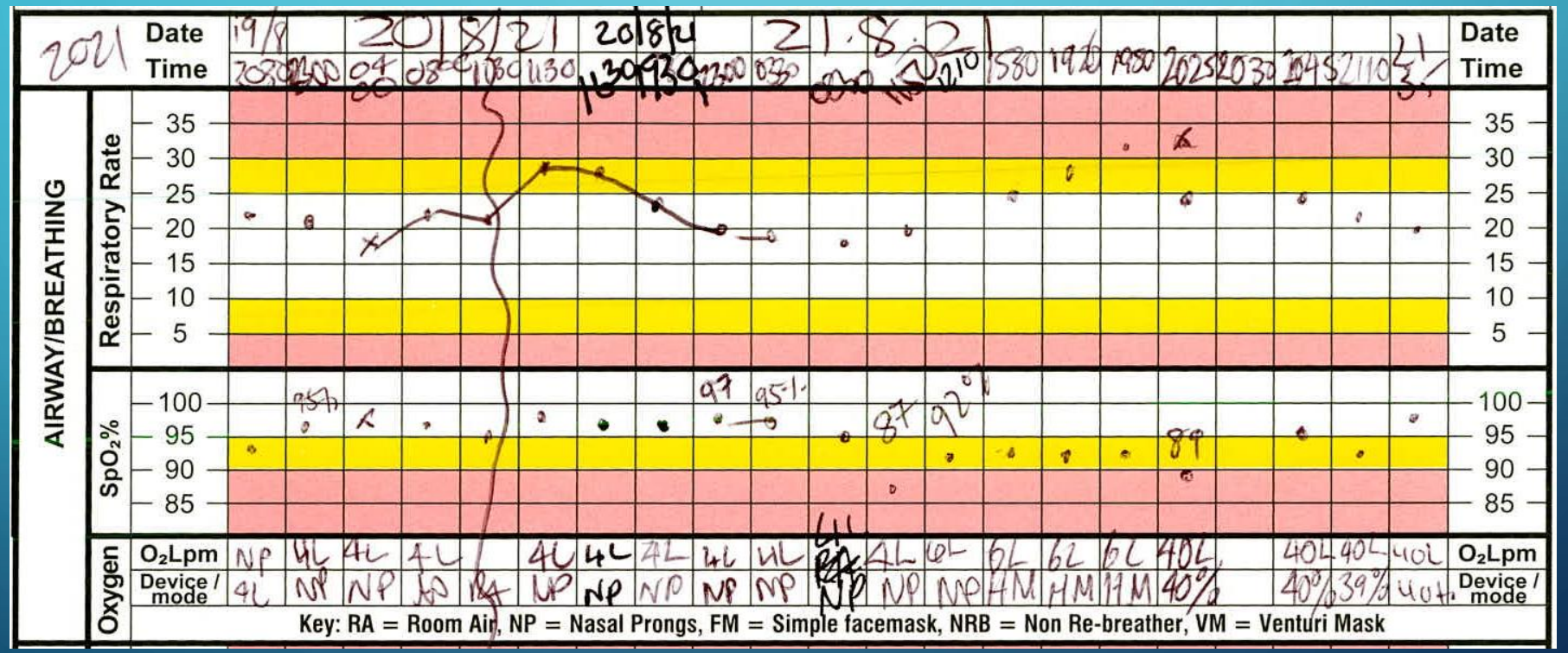
- Rapid Response – SpO2 85%, RR 30
  - RR 27, SpO2 92% Hudson @ 8L
  - Increasing dyspnoea and respiratory effort
  - Widespread crackles
  - Commenced HFNP 40/40

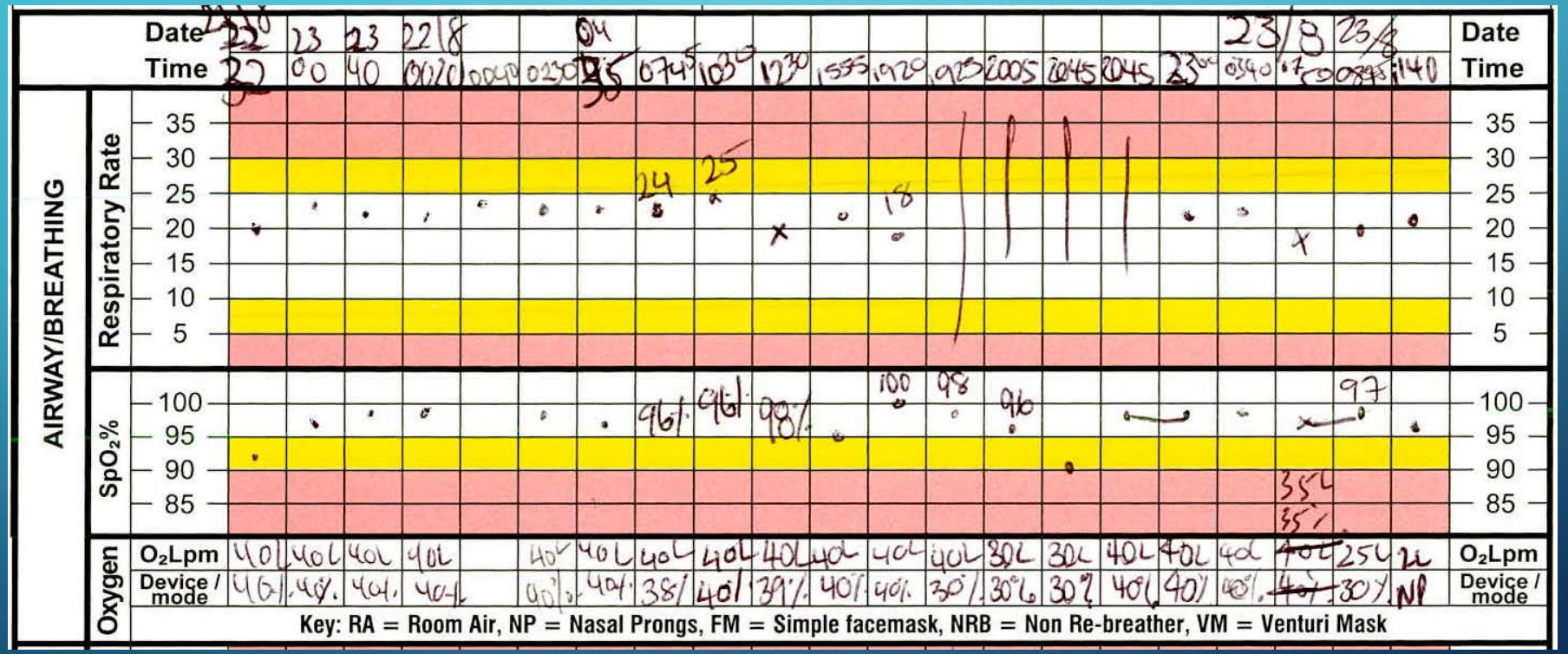
    - ABG 2100hrs pO2 78 on FiO2 0.4
    - Plan to self prone O/N
    - HFNP up to 60L or move to CPAP
    - Consider T/F ICU if fails that (SpO2≥92%)

    - R/V 0415 SpO2 98% on 40/40 – subjectively better
- A4/D13 - Feeling much better
  - P 64, RR 20, SpO2 98% 40/40, BP 116/74, T 36.6

A4/D14 - A7/D17

- A4 - Much better
  - 40/40 HF → 2L NP, SpO2 96%
  - Chest still some crackles but improving
- A5-7/D15-17 - Continued improvement
  - Decreasing O2 requirement
  - R/A D6/16
  - D/C D18 with daughters


AIRWAY/BREATHING
Date
Time
Respiratory Rate
35
30
25
20
15
10
5
SpO2%
100
95
90
85
Oxygen
O2Lpm
Device / mode
Key: RA = Room Air, NP = Nasal Prongs, FM = Simple facemask, NRB = Non Re-breather, VM = Venturi Mask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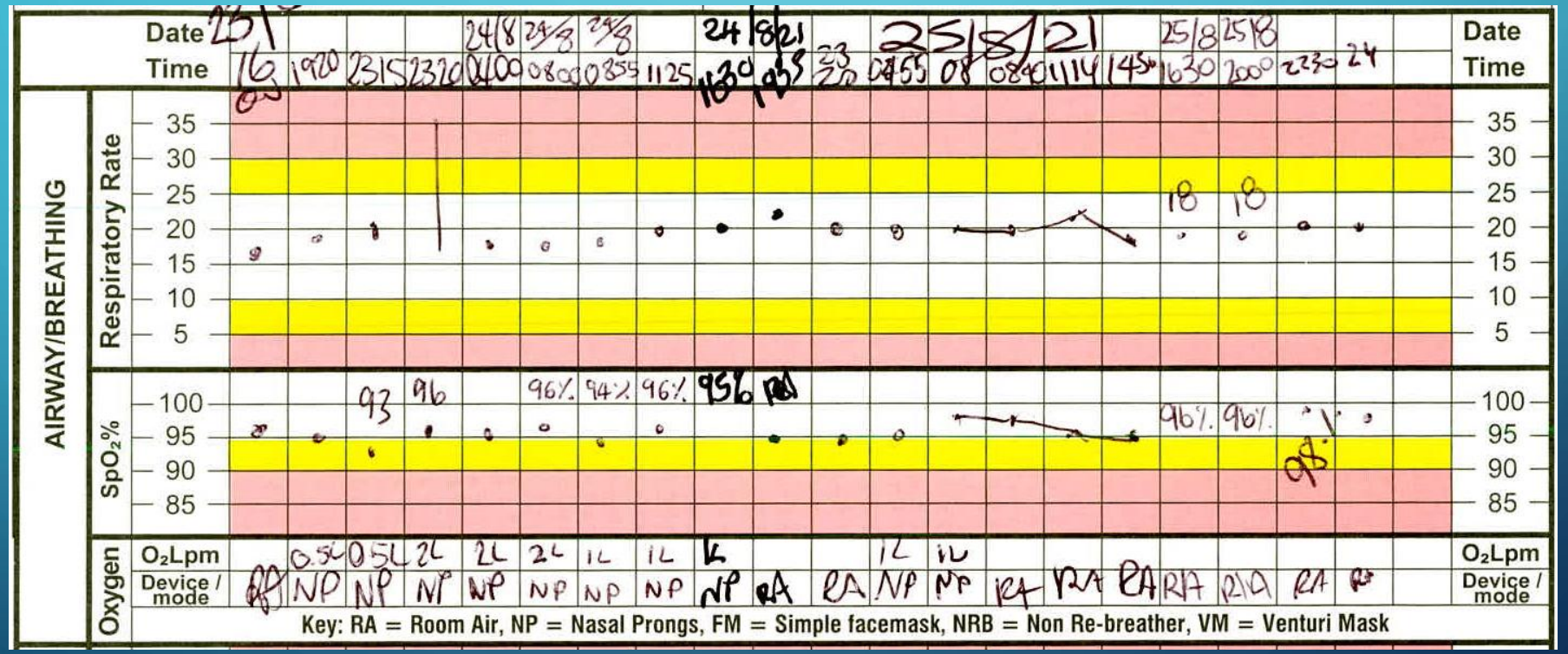
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- Much more likely to be occasional/ incidental cases
- Management will be like other infectious diseases
- Caution and considered action
- Communication