Alexander Sartorius Department of Psychiatry and Psychotherapy Central Institute of Mental Health (CIMH)



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#### Lessons from COVID-19: ECT is not an Elective Treatment

26.05.2022



### conflicts of interest



- German Society for Psychiatry, Psychosomatics, Psychotherapy and Neurology (DGPPN): Head of the section "Electroconvulsive Therapy"

- German Association for Neuropsychopharmacology and Pharmacopsychiatry (AGNP): Deputy head of the working group "Electroconvulsive Therapy"

- ECT training, lectures, workshops, and book chapter royalities

### **Lessons from COVID-19**



- What happened?
- New Disorders
- Changes in technique
- Ethics
- mECT and cECT





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#### Mannheim



#### unpublished ...



#### Leuven

Sienaert P, Lambrichts S, Popleu L, Van Gerven E, Buggenhout S, Bouckaert F. Electroconvulsive Therapy During COVID-19-Times: Our Patients Cannot Wait. Am J Geriatr Psychiatry. 2020 Jul;28(7):772-775

#### Dublin

Colbert SA, McCarron S, Ryan G, McLoughlin DM. Immediate Impact of Coronavirus Disease 2019 on Electroconvulsive Therapy Practice. J ECT. 2020 Jun;36(2):86-87.

#### Early work – 2020



We are currently in the early stages of a global pandemic of coronavirus disease 2019 (COVID-19) that *will last many months* and challenge public health services with major socioeconomic consequences. The mechanisms of the outbreak are not yet fully clear but the responsible novel zoonotic SARS-CoV-2 coronavirus has high transmissibility.

ECT practitioners need to liaise with their senior anaesthetic colleagues to optimise a safe environment for ECT and determine the most appropriate PPE to be used.<sup>3</sup> This may include protective eyewear, body gowns, headwear, facemasks, shoe covers and gloves (Figure 1). Local protocols should be based on national and international best practice guidance and will also need to include protocols for safe and supervised donning and doffing of PPE. Unfortunately, because of unprecedented demand, PPE gear is becoming a scarce resource and this needs to be factored into clinical decision-making processes, keeping in mind healthcare disparity between countries with high, middle and low incomes.



#### Dublin

Colbert SA, McCarron S, Ryan G, McLoughlin DM. Immediate Impact of Coronavirus Disease 2019 on Electroconvulsive Therapy Practice. J ECT. 2020 Jun;36(2)

"I have no idea what's awaiting me, or what will happen when this all ends. For the moment I know this: there are sick people and they need curing." - Albert Camus, The Plague

**Early work – 2020** 

#### "With the advent of the COVID-19 plague, we are in unprecedented times"

- see Tor et al., ECT in a Time of Covid-19; McLoughlin et al., Images in Clinical ECT: Immediate impact of COVID-19 on ECT Practice

"However, ECT has been traditionally viewed as an elective procedure, and in this pandemic, elective procedures are deemed non-essential or non-urgent, creating much angst for providers and especially for patients who depend on this treatment."

"Clearly, amidst precious resources, ECT is a lifesaving gem."



ALBERT CAMUS

Espinoza RT, Kellner CH, McCall WV. Electroconvulsive Therapy During COVID-19: An Essential Medical Procedure-Maintaining Service Viability and Accessibility. J ECT. 2020 Jun;36(2):78-79.



Early work – 2020



"Now is a crucial time for us to stand up for our patients' right to continued access to ECT"

- Randall T. Espinoza, Charles H. Kellner, & William V. McCall, 2020

"In Flanders, a region in Belgium with 6,596,000 inhabitants, 70% of the ECTunits stopped treatments from the start of the pandemic."

"Reasons cited are unavailability of anesthesiologists rescheduled to work in intensive care units, shortage of muscle relaxants needed for mechanical ventilation of COVID-patients, and fear of virus transmission through bagmask-ventilation during the ECT-procedure. Another reason for closing down the ECT-service is that **ECT is considered an elective intervention**, and that, moreover, "**psychiatry can wait**.""

"In these exceptional times, in which we must all arm ourselves against the coronavirus-pandemic, treating the most vulnerable of our patients is of major importance."



The number of persons present in the treatment room was kept to the absolute minimum required for the patient's care (ECT-nurse, ECT-psychiatrist, anesthesiologist and assistantanesthesiologist). Appropriate personal protective equipment was used, including a standard "filtering face piece" 2-respirator, eye protection, a fluid-resistant longsleeved gown and gloves, as prescribed by the WHO (Fig. 1).

Sienaert P, Lambrichts S, Popleu L, Van Gerven E, Buggenhout S, Bouckaert F. Electroconvulsive Therapy During COVID-19-Times: Our Patients Cannot Wait. Am J Geriatr Psychiatry. 2020 Jul;28(7):772-775



## Effects of the COVID-19 pandemic on provision of electroconvulsive therapy

Richard Braithwaite,<sup>1</sup> Robert Chaplin,<sup>2</sup> Vimal Sivasanker<sup>3</sup>

BJPsych Bulletin (2021) Page 1 of 4, doi:10.1192/bjb.2021.43

<sup>1</sup>Isle of Wight NHS Trust, Newport, Isle of Wight, UK; <sup>2</sup>Royal College of Psychiatrists, London, UK; <sup>3</sup>Hertfordshire Partnership University NHS Foundation Trust, Radlett, UK

#### Correspondence to Richard Braithwaite (richard.braithwaite@nhs.net)

First received 10 Dec 2020, final revision 1 Mar 2021, accepted 9 Apr 2021

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**Aims and method** COVID-19 has had a heavy impact on healthcare provision worldwide, including delivery of electroconvulsive therapy (ECT). A survey was completed in the UK and Republic of Ireland in April and July 2020 by 95 and 89 ECT clinics respectively.

**Results** In April 2020, 53% of the clinics provided only emergency treatment and 24% had closed. Reasons included unavailability of anaesthetists, infection control measures and staff sickness. Restrictions persisted in July, with disruption to an estimated 437 individuals' treatment and poor outcomes, including clinical deterioration and readmission.

**Clinical implications** Risk stratification, longer clinic sessions, improvements in ventilation, regular virus testing, pragmatic staff rostering and availability of personal protective equipment will protect against service disruption in subsequent waves of the pandemic.

**Keywords** Electroconvulsive therapy; anaesthesia; mental health; coronavirus; COVID-19.

Braithwaite R, Chaplin R, Sivasanker V. Effects of the COVID-19 pandemic on provision of electroconvulsive therapy. BJPsych Bull. 2021 May 12:1-4.

### What happended: Surveys (UK, ECTAS not SEAN)

Table 1 Survey responses from ECT clinics in England, Wales, Northern Ireland and the Republic of Ireland			
	Responses, n (%)		
Questions	April 2020	July 2020	
Is your ECT service currently being affected by the COVID-19 pandemic?			
Yes	84 (88)	69 (78)	
No	11 (12)	20 (22)	
What is the reason? <sup>a</sup>			
Lack of availability of anaesthetists	49 (52)	10 (11)	
Increased PPE/environmental requirement	43 (45)	7 (8)	
Required infection control procedures have reduced treatment capacity <sup>b</sup>	-	48 (54)	
Staff sickness/shielding	43 (45)	10 (11)	
Staff redeployed <sup>b</sup>	-	3 (3)	
Other <sup>c</sup>	20 (21)	23 (26)	
What has been the impact on service provision? <sup>a</sup>			
No service provided at present	23 (24)	8 (9)	
Reduced number of sessions	12 (13)	13 (15)	
Service restricted to most urgent/severe cases	50 (53)	38 (43)	
Other <sup>d</sup>	14 (15)	25 (28)	
What has been the effect on patients who would normally have received ECT prior to the pandemic? <sup>a</sup>			
Having ECT at a different clinic	<u>1</u> 6 (17)	20 (22)	
Reduced frequency of ECT	20 (21)	14 (16)	
Not having any ECT, in-patient, duration of stay potentially increased	47 (49)	28 (31)	
Not having any ECT, discharged from hospital	17 (18)	17 (19)	
ECT course curtailed	35 (37)	19 (21)	
Continuation/maintenance ECT stopped	46 (48)	42 (47)	
Clinical condition worsened, probably as a result	18 (19)	29 (33)	
Admitted to hospital	3 (3)	16 (18)	
Detained in hospital	1 (1)	6 (7)	



"Looking to the near future, it is imperative that ECT services remain functional even if there is a second wave of COVID-19 infections this winter. "

"For treatment of low-risk patients, staff need wear only basic PPE (an apron, gloves and a surgical mask, with consideration of eye protection), usual recovery areas can be used and treatment rooms do not require full cleaning between patients."

Braithwaite R, Chaplin R, Sivasanker V. Effects of the COVID-19 pandemic on provision of electroconvulsive therapy. BJPsych Bull. 2021 May 12:1-4.

### What happended: Surveys (Canada)



Demchenko I, Blumberger DM, Flint AJ, Anderson M, Daskalakis ZJ, Foley K, Karkouti K, Kennedy SH, Ladha KS, Robertson J, Vaisman A, Koczerginski D, Parikh SV, Bhat V. Electroconvulsive Therapy in Canada During the First Wave of COVID-19: Results of the "What Happened" National Survey. J ECT. 2022 Mar 1;38(1):52-59.

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### What happended: Surveys (Canada)





Status of ECT service in Canada during the first wave of the COVID-19 pandemic (ie, between mid-March and mid-May 2020).

Demchenko I, Blumberger DM, Flint AJ, Anderson M, Daskalakis ZJ, Foley K, Karkouti K, Kennedy SH, Ladha KS, Robertson J, Vaisman A, Koczerginski D, Parikh SV, Bhat V. Electroconvulsive Therapy in Canada During the First Wave of COVID-19: Results of the "What Happened" National Survey. J ECT. 2022 Mar 1;38(1):52-59.

### What happended: Surveys (Canada)



#### Key decision makers N = 62 centres

Α



#### CONCLUSIONS

Despite existing recommendations, institutions showed a great variance in decision-making guided by risk perceptions and by the local interpretation of what constitutes an "elective" procedure, as ECT is not elective for all, essential for many, and may be potentially life-saving for some. To mitigate risks associated with the evolving "curve" of the pandemic, a need for a systematic consensus framework with input from multiple professionals representing treatment centers of different types is therefore warranted.

Demchenko I, Blumberger DM, Flint AJ, Anderson M, Daskalakis ZJ, Foley K, Karkouti K, Kennedy SH, Ladha KS, Robertson J, Vaisman A, Koczerginski D, Parikh SV, Bhat V. Electroconvulsive Therapy in Canada During the First Wave of COVID-19: Results of the "What Happened" National Survey. J ECT. 2022 Mar 1;38(1):52-59.

### What happended: Surveys (India)



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When specifically the proportionate reduction in particular services was evaluated, ECT services were the most affected with **nearly 90.7% reduction in initiation of ECT**, this was followed by a reduction in the number of patients admitted to the inpatient reduced by 76.7% [Table 2 and Figure 2].

#### Figure 1

Services provided before and during lockdown

Grover S, Mehra A, Sahoo S, Avasthi A, Tripathi A, D'Souza A, Saha G, Jagadhisha A, Gowda M, Vaishnav M, Singh O, Dalal PK, Kumar P. Impact of COVID-19 pandemic and lockdown on the state of mental health services in the private sector in India. Indian J Psychiatry. 2020 Sep-Oct;62(5):488-493.

# What happended: Surveys (Germany, Austria, Switzerland)





Karl S, Schönfeldt-Lecuona C, Sartorius A, Grözinger M. Provision of Electroconvulsive Therapy During the COVID-19 Pandemic: A Survey Among Clinics in Germany, Austria, and Switzerland. J ECT. 2022

#### **TABLE 3.** Reasons for the Reduced Number of ECT Treatments Other Than the Hygiene Concept, Personnel Shortages in the Anesthesiology or Psychiatry Departments, Limited Availability of Rooms, or Patients Refusing ECT Due to the Pandemic

What happended: Surveys (Germany, Austria,

- · Decision by the psychiatry department to suspend maintenance ECT
- Decision by the clinic management to suspend elective treatments
- · Insecurities regarding hygiene

Switzerland)

- · Spread of SARS-CoV-2 in the psychiatry department
- Logistical problems due to COVID-19
- Temporary reduction of the total number of patients in the clinic lead to fewer ECT treatments
- Temporary suspension of ECT treatment, temporary suspension of out-of-county treatments
- · Reduced number of patients due to reduced capacity
- · Early termination of maintenance treatments
- Anesthesiology department limited anesthesiology provision to lifethreatening conditions, so ECT could only be provided for catatonia

In conclusion, the COVID-19 pandemic had and continues to have a marked negative impact on the provision of ECT in German-speaking ECT clinics. This is concerning because ECT **should not be considered an elective procedure, a plea that has been made in the early stages of the pandemic** and has since been repeated. Electroconvulsive therapy clinics should urgently take the necessary steps to be able to provide ECT services without disruptions. The rather positive outlook respondents had for the short and medium terms of ECT gives confidence that patients can be hopeful for a swift return of normal conditions for the provision of ECT.

Karl S, Schönfeldt-Lecuona C, Sartorius A, Grözinger M. Provision of Electroconvulsive Therapy During the COVID-19 Pandemic: A Survey Among Clinics in Germany, Austria, and Switzerland. J ECT. 2022



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Hospital leadership top priority during the alpha and delta waves was to reduce the hospital beds to 60-70% of normal occupancy.

Therefore and luckily, my early objection that stopping m/c-ECT would lead to more readmissions was heard.

Also m/c-ECT was approved by the local Department of Health even for wards treating for positive patients, and even if the m/c-ECT patients were coming from nursing homes.

It turned out that a main task with m/c-ECT was not to protect the hospital from potentially infected the m/c-ECT patients, but to protect the nursing homes from m/c-ECT patients spreading the virus into the nursing homes.

#### **New Disorders**



#### **During COVID-19 infection first onset of:**

- Depression, psychosis and catatonia<sup>1</sup>
- Delirious mania<sup>2</sup>
- Catatonia<sup>3</sup>
- Catatonia and Delirium<sup>4</sup>
- Bipolar (mania)<sup>5</sup>
- Psychosis and Suicidal Behavior<sup>6</sup>
- Life-Threatening Catatonia<sup>7</sup>



1 Austgen G, Meyers MS, Gordon M, Livingston R. The Use of Electroconvulsive Therapy in Neuropsychiatric Complications of Coronavirus Disease 2019: A Systematic Literature Review and Case Report. J Acad Consult Liaison Psychiatry. 2022 Jan-Feb;63(1):86-93.

2 Reinfeld S, Yacoub A. A Case of Delirious Mania Induced by COVID-19 Treated With Electroconvulsive Therapy. J ECT. 2021 Dec 1;37(4):e38-e39.

3 Sakhardande KA, Pathak H, Mahadevan J, Muliyala KP, Moirangthem S, Reddi VSK. Concurrent catatonia and COVID-19 infection - An experiential account of challenges and management of cases from a tertiary care psychiatric hospital in India. Asian J Psychiatr. 2022 Mar;69

4 Kaur G, Khavarian Z, Basith SA, Faruki F, Mormando C. New-Onset Catatonia and Delirium in a COVID-Positive Patient. Cureus. 2021 Oct 1;13(10)

5 Kashaninasab F, Panahi Dashdebi R, Ghalehbandi MF. Comorbidity of Coronavirus disease (COVID-19) and the first episode of bipolar disorder and its treatment challenges: A case report. Med J Islam Repub Iran. 2020 Aug 22;34:103.

6 Chacko M, Job A, Caston F 3rd, George P, Yacoub A, Cáceda R. COVID-19-Induced Psychosis and Suicidal Behavior: Case Report. SN Compr Clin Med. 2020;2(11):2391-2395.

7 Deocleciano de Araujo C, Schlittler LXC, Sguario RM, Tsukumo DM, Dalgalarrondo P, Banzato CEM. Life-Threatening Catatonia Associated With Coronavirus Disease 2019. J Acad Consult Liaison Psychiatry. 2021 Mar-Apr;62(2):256-257.

#### Changes in technique: early work





#### filtering facepiece (US: N90, N 95, N99)

Class <sup>[6]</sup>	Filter penetration limit (at 95 L/min air flow)	Inward leakage	Typical elastic band
FFP1	Filters at least 80% of airborne particles	<22%	Yellow
FFP2	Filters at least 94% of airborne particles	<8%	Blue or White
FFP3	Filters at least 99% of airborne particles	<2%	Red

Colbert SA, McCarron S, Ryan G, McLoughlin DM. Immediate Impact of Coronavirus Disease 2019 on Electroconvulsive Therapy Practice. J ECT. 2020 Jun;36(2)

### **Changes in technique**



Burhan AM, Safi A, Blair M, O'Reilly R. Electroconvulsive Therapy for Geriatric Depression in the COVID-19 Era: Reflection on the Ethics. *Am J Geriatr Psychiatry*. 2020;28(8):900-902.

### **Changes in technique: preoxygenation**



Introduction: Electroconvulsive therapy (ECT) is a critical procedure in psychiatric treatment, but as typically delivered involves the use of bag-mask ventilation (BMV), which during the COVID-19 pandemic exposes patients and treatment staff to potentially infectious aerosols. **Objective:** To demonstrate the utility of a modified anesthesia protocol for ECT utilizing preoxygenation by facemask and withholding the use of BMV for only those patients who desaturate during the apneic period. **Methods:** This chart review study analyzes patients who were treated with ECT using both the traditional and modified anesthesia protocols.

**Results:** A total of 106 patients were analyzed, of whom 51 (48.1%) required BMV using the new protocol. Of clinical factors, only patient BMI was significantly associated with the requirement for BMV. Mean seizure duration reduced from 52.0  $\pm$  22.4 to 46.6  $\pm$  17.1 s, but seizure duration was adequate in all cases. No acute physical, respiratory, or psychiatric complications occurred during treatment.





Isn't that more a problem in the recovery room ???

Starting with BMV when patients already desaturate ???

50% - Is this glass half full or half empty?

Luccarelli J, Fernandez-Robles C, Fernandez-Robles C, Horvath RJ, Berg S, McCoy TH, Seiner SJ, Henry ME. Modified Anesthesia Protocol for Electroconvulsive Therapy Permits Reduction in Aerosol-Generating Bag-Mask Ventilation during the COVID-19 Pandemic. Psychother Psychosom. 2020;89(5):314-319.

### **Changes in technique: A COVID-19 positive patient**



Published guidance specifically mandates against the use of ECT in proven covid-19 patients yet, recognizing that any patient might be a SARS-CoV-2 carrier, it also recommends full PPE for all ECT, with adaptations to anesthetic technique to minimize **or avoid bag-mask ventilation**.

Treatments were in a **positive-pressure emergency operating theatre** with all four professionals (anesthesiologist, anesthesiology assistant, psychiatrist and psychiatric nurse) wearing an N99 respirator, cap, visor, fluid-resistant gown, plastic apron, shoe covers and three pairs of gloves. The theatre and all equipment were thoroughly disinfected before the next surgical case.

For the third and fifth treatments, induction and muscle relaxation was followed by intubation using videolaryngoscopy, in accordance with guidance on intubation of covid-19 patients.(2) **Anesthesia was then maintained for 20 minutes with inhaled sevoflurane and mechanical ventilation**, allowing aerosols generated during intubation to be eliminated. Only after this period did the psychiatrist and psychiatric nurse enter, following which **more suxamethonium was given and ECT delivered**, the psychiatrist leaving prior to extubation.

Braithwaite R, McKeown HL, Lawrence VJ, Cramer O. Successful Electroconvulsive Therapy in a Patient With Confirmed, Symptomatic COVID-19. J ECT. 2020 Sep;36(3):222-223

### **Changes in technique**



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#### ELECTROCONVULSIVE THERAPY DURING COVID-19 PANDEMIC



Source: Flexman AM, Abcejo AS, Avitsian R, et al. Neuroanesthesia Practice During the COVID-19 Pandemic: Recommendations From Society for Neuroscience in Anesthesiology and Critical Care (SNACC). J Neurosurg Anesthesiol. 2020;32(3):202-209. doi:10.1097/ ANA.0000000000000691

> Lapid MI, Seiner S, Heintz H, et al. Electroconvulsive Therapy Practice Changes in Older Individuals Due to COVID-19: Expert Consensus Statement. *Am J Geriatr Psychiatry*. 2020;28(11):1133-1145.

### Changes in technique: still bag-valving?



Electroconvulsive therapy is considered to be a procedure at high-risk for aerosolization of respiratory secretions during bag-mask ventilation, we decided to significantly alter our practice, moving treatment from the post-anesthesia care unit (PACU) into one of the operating rooms. This was done for two reasons. Firstly, PACU space was a limited resource as all available areas were rapidly being converted into intensive care units (ICUs). Secondly, moving the treatment into a **negative pressure OR allowed for more effective isolation of potentially infected airborne droplets**.

Consideration was then given to developing a safe airway management strategy for treatment of ECT: Intubation was considered but it was felt that instrumentation of the trachea would result in considerably **more coughing and aerosolization**, **especially during extubation**. The use of supraglottic airway devices such as a laryngeal mask airway (LMA) were also considered, but it was thought that the seal on such a device would not provide the same degree of protection as an endotracheal tube (ETT) and might also lead to increased risk for coughing when removed, **so our anesthesiologist opted to manage the airway using a standard bag-valve-mask**. Prior to treatment a breathing circuit filter (BCF) (6) with a filter retention efficiency for airborne particles of greater than 99% (Figure 1) was removed from an anesthesia circuit and placed between the mask and valve (Figure 2). These devices differ in construction between manufactures but share a similar efficiency rating and standardized breathing circuit connections. The mask was kept on the patients face during passive exhalation and a surgical mask was placed over the patients nose and mouth at all other times.



Bryson EO, Aloysi AS. A Strategy for Management of Electroconvulsive Therapy Patients During the COVID-19 Pandemic. J ECT. 2020 Sep;36(3):149-151.

### **Changes in technique: filter**

Electroconvulsive therapy is considered to be a procedure at high-risk for aerosolization of respiratory secretions during bag-mask ventilation, we decided to significantly alter our practice, moving treatment from the post-anesthesia care unit (PACU) into one of the operating rooms. This was done for two reasons. Firstly, PACU space was a limited resource as all available areas were rapidly being converted into intensive care units (ICUs). Secondly, moving the treatment into a negative pressure OR allowed for more effective isolation of potentially infected airborne droplets.

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Bryson EO, Aloysi AS. A Strategy for Management of Electroconvulsive Therapy Patients During the COVID-19 Pandemic. J ECT. 2020 Sep;36(3):149-151.

### Changes in technique: half closed system and filter





Components of the circle breathing system. B, reservoir bag; V, ventilator; APL, adjustable pressurelimiting (pop-off) valve. (Reproduced with permission from: Brockwell RC. Inhaled anesthetic delivery systems. In: Miller RD, ed. Anesthesia. 6th ed. Philadelphia, PA: Churchill Livingstone; 2004:295.)

Figure 2



Bryson EO, Aloysi AS. A Strategy for Management of Electroconvulsive Therapy Patients During the COVID-19 Pandemic. J ECT. 2020 Sep;36(3):149-151.

### **Changes in technique: repetition**



**BMV is generally discouraged** for known/suspected COVID patients considering the possibility of a poor airway seal increasing the risk of aerosolization5.

Thiruvenkatarajan V, Dharmalingam A, Armstrong-Brown A, Weiss A, Waite S, Van Wijk R. Uninterrupted Anesthesia Support and Technique Adaptations for Patients Presenting for Electroconvulsive Therapy During the COVID-19 Era. J ECT. 2020 Sep;36(3):156-157.

#### The use of the traditional

#### bag-valve-mask hyperventilation prior to ECT generates aerosols and should be avoided during the COVID-19 pandemic

[4,8,10,11,14] for not exposing health professionals and patients to unnecessary risks of infection. Pre-oxygenation by face mask for 3–5 min should be prioritized for reducing the need for MV [4,8,10,11,14], and apneic oxygenation via nasal prongs should be considered [17]. If hyperventilation is necessary, the use of a laryngeal mask allowing capnography [17] is preferred to MV.

Loureiro Pereira-Soares E, Nascimento AL, da Silva JA, Nardi AE. Anesthesia for electroconvulsive therapy during the COVID-19 pandemic. Expert Rev Neurother. 2021 Jan;21(1):1-3.

#### **Changes in technique: escalating**





See this image and copyright information in PMC Figure 1 Supraglottic airway (i-gel®) with a viral filter and bite bloc tent covering the airway and upper part of chest.





Araujo RF, Quites LO. Segurança ocupacional da equipe na prática de ECT durante a pandemia de COVID-19 [Occupational team safety in ECT practice during the COVID-19 pandemic]. Braz J Anesthesiol. 2020 Nov-Dec;70(6):687-688

Thiruvenkatarajan V, Dharmalingam A, Armstrong-Brown A, Weiss A, Waite S, Van Wijk R. Uninterrupted Anesthesia Support and Technique Adaptations for Patients Presenting for Electroconvulsive Therapy During the COVID-19 Era. J ECT. 2020 Sep;36(3):156-157

Coffey MJ, Kerns S, Sanghani S, Wachtel L. The Impact of COVID-19 on Brain Stimulation Therapy. Psychiatr Clin North Am. 2022;45(1):123-131

### **Changes in technique: my personal conclusions**

**Necessary changes:** 

- PPE (gloves, FFP-2, eye protection, more desinfection, basically hands!)

of spreading in the recovery room (or post-anesthesia care unit (PACU))

No changes:

- Airway filters are necessary (independend from pandemic)







#### **Ethics**



Table 1 Ethical values to guid sive therapy (ECT) <sup>a</sup>	e rationing of scarce healthcare resources in	the COVID-19 pandemic, adapted for electroconvul-	
Ethical values and guiding principles	Application to COVID-19 pandemic	Specific ECT applications	
Maximise benefits			
Save the most lives	Receives the highest priority	Prioritise in-patients with severe psychotic depression,	
Save the most life-years – maximise prognosis	Receives the highest priority	Iethal catatonia, neuroleptic malignant syndrome, manic delirium Deprioritise patients with predictors of poorer outcome t ECT (e.g. personality disorder, depression that is more chronic or treatment resistant, without suicidality or dangerousness) Deprioritise patients with high medical risk during ECT Deprioritise patients who must expose themselves to greater risk of COVID-19 infection to access ECT (e.g. living far from the ECT facility) Give higher-dose ECT and avoid milder ECT modalities, f minimise number of sessions and patient and staff risk of exposure to COVID-19	
Treat people equally			
First come, first served	Should not be used	Use random allocation to prioritise patients with similar	
Random selection	Used for selecting among patients with similar prognosis	prognosis	
Promote and reward instrumental	value (benefit to others)		
Retrospective – priority to those who have made relevant contributions	Gives priority to research participants and healthcare workers when other factors, such as maximising benefits, are equal	Prioritise patients who are healthcare workers or work in essential services Deprioritise patients who pose a higher risk of infecting the ECT team, to conserve ECT resources	
Prospective – priority to those who are likely to make relevant contributions	Gives priority to healthcare workers		
Give priority to the worst off			
Sickest first	Used when it aligns with maximising benefits	Prioritise younger premorbidly well patients with acute	
Youngest first	Used when it aligns with maximising benefits such as preventing spread of the virus	onset of an ECT-responsive psychiatric disorder	

Tor PC, Tan J, Loo C. Model for ethical triaging of electroconvulsive therapy patients during the COVID-19 pandemic. BJPsych Bull. 2021;45(3):175-178.





### **Electroconvulsive Therapy Is an Essential Procedure**

Daniel F. Maixner, M.D., Richard Weiner, M.D., Ph.D., Irving M. Reti, M.B.B.S., Adriana P. Hermida, M.D., Mustafa M. Husain, M.D., Dane Larsen, B.A., William M. McDonald, M.D.

Maixner DF, Weiner R, Reti IM, Hermida AP, Husain MM, Larsen D, McDonald WM. Electroconvulsive Therapy Is an Essential Procedure. Am J Psychiatry. 2021 May 1;178(5):381-382.





Belgium

Van de Velde N, Geerts PJ, Tandt H, Vanderhasselt MA, Titeca K, Lemmens G. Discontinuation of Continuation or Maintenance Electroconvulsive Therapy Caused by the COVID-19 Pandemic: A Naturalistic Study Investigating Relapse in Patients With Major Depressive Disorder. J ECT. 2021 Dec 1;37(4):230-237.





#### Significant outcomes

- The 6-month relapse rate after abrupt discontinuation of M-ECT (44%) is comparable to the relapse rate following a successful acute course of ECT.
- Discontinuation of M-ECT may be considered, but caution is advised in patients with a diagnosis of psychotic disorder and those with a short interval between M-ECT treatments at the time of discontinuation.

#### Limitations

- The generalizability of our findings is limited by the relatively high mean age (69.46 years) of our cohort.
- The impact of maintenance pharmacotherapy on the risk of relapse was not assessed.

Belgium, n=81

Lambrichts S, Vansteelandt K, Crauwels B, Obbels J, Pilato E, Denduyver J, Ernes K, Maebe PP, Migchels C, Roosen L, Buggenhout S, Bouckaert F, Schrijvers D, Sienaert P. Relapse after abrupt discontinuation of maintenance electroconvulsive therapy during the COVID-19 pandemic. Acta Psychiatr Scand. 2021 Sep;144(3):230-237.

Acta Psychiatrica Scandinavica	Check
teceived: 24 March 2021 Accepted: 3 May 2021	
DOI: 10.1111/acps.13314	eta Psychiatrica Scandinavica WILEY
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#### 2. GLOBAL IMPROVEMENT

Rate total improvement whether or not, in your judgment, it is due entirely to drug treatment. Compared to his condition at admission to the project, how much has he changed?

Not assessed	• 0
Very much improved	
Much improved	2
Minimally improved	3
No change	□ 4
Minimally worse	□ 5
Much worse	• 6
Very much worse	<b>□</b> 7



**Rehospitalization rates:** 

14.3% for the continued group75.0% for the reduced group44.1% for the stopped group

Methfessel I, Besse M, Belz M, Zilles-Wegner D. Effectiveness of maintenance electroconvulsive therapy-Evidence from modifications due to the COVID-19 pandemic. Acta Psychiatr Scand. 2021 Sep;144(3):238-245.



# "Now is a crucial time for us to stand up for our patients' right to continued access to ECT"

Randall T. Espinoza, Charles H. Kellner, & William V. McCall

### "ECT is an essential and NOT an elective treatment"



#### Thanks for your attention

www.zi-mannheim.de alexander.sartorius@zi-mannheim.de

