

# Day surgery and Rare Conditions- An information resource to improve accessibility, reduce same day cancellations and ensure safer outcomes

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## Background

Post COVID, Day surgery has been pivotal to tackling the backlog of waiting lists of patients for elective surgery. It has also been shown to decrease post operative delirium and complication rates in older frail patients. Day surgery access for these complex often frail patients is essential to improve patient care. A wide range of commonly encountered co morbidities present themselves in these patients preoperatively. However, we noticed patients with rarer syndromes alongside their multimorbid state were encountered where perioperative management was not common knowledge but needed consideration in order to increase their chances of day surgery success. Tailored management plans were developed for these patients specific to their co morbidities, cognitive status and social circumstances meaning we were more likely to have a positive patient experience, outcome and increase their access to day surgery. We felt the perioperative management of these rarer conditions was complex and wanted to create an accessible resource to increase patient safety and decrease chances of on the day cancellations due to lack of knowledge.

## Introduction

Our virtual pre-operative assessment clinic for complex day surgery patients has presented us with a variety of patients referred with rare disorders. Often there are no readily accessible guidelines for their perioperative management without extensive research.

It became evident that devising an easy access information guide for these disorders would help in the decision-making process and increase accessibility to day surgery for these patients and become a source of shared learning. We wanted to emphasise that rare conditions did not exclude them from day surgery.

## Methods

Uncommon disorders referred via the preoperative clinic were noted. These disorders were researched and a short summary of anaesthetic and surgical considerations and likely suitability or exclusion from day surgery were produced. These were published the hospital intranet for use by all members of the peri-operative team.

## Results

Disorders we have developed information guides on include Brugada syndrome, Long QT syndrome, Shwachman Diamond Syndrome, Non-specific interstitial Pneumonia, Acute intermittent porphyria, Factor V Leiden, cardiac sarcoidosis, Ductus diverticulum, Marijuana implications in day surgery, Non epileptic functional seizures, Multiple Sclerosis with Botox injections, ESBL infection, and Charcot Marie Tooth syndrome. Doctors in training and practitioners aid in highlighting these patients and formulating these guides with the Day surgery Lead. These are published with an A-Z search function for easy access on the hospital intranet.

## Conclusions

Publication of these rare but important disorders can help improve patient safety in the peri-operative period by allowing easy access to a summary of considerations. This information can then guide our decision making for the patient to facilitate access to day surgery if possible. Ongoing publication of new disorders as encountered and feedback on the dissemination of this educational tool to anaesthetists, perioperative practitioners and doctors in training is being monitored. We hope to extend this to include all day surgery staff so they can help sign post to this resource.

## Factor V Leiden

### Preoperative

Ask about previous VTE. Factor V Leiden increases activated protein C resistance so increased risk of thrombosis.

Heterozygote risk DVT around 10 x no Factor V Leiden. Homozygote risk 100 x for DVT.

Ask about other risk factors that may increase VTE risk.

May be on anticoagulants or antiplatelet drugs usually if have had previous VTE. Warfarin may need bridging with LMW heparin pre-operatively.

DOACs accepted treatment for recurrent VTE in FVL.

Discuss with haematology early.

### Intraoperative

Avoid dehydration

Consider regional techniques to decrease VTE risk.

Mechanical VTE prophylaxis can be considered

### Postoperative

Calculate VTE risks and give prophylaxis accordingly. If subcutaneous LMW heparin is needed this can be given to day surgery patients to take home and injection technique taught

Plan to return to normal anticoagulants post operatively ASAP

Early mobilisation helpful.

**Factor V Leiden is not a contraindication to day surgery. Early mobilisation can help decrease risks of VTE post surgery**

### References

Adriana OD. Hematologic disorders. In: Hines R, Jones S, editors. Stoelting's Anesthesia and Co-Existing Disease. 8th Edition. Philadelphia, PA: Elsevier; 2021. P. 465-496

## Brugada Syndrome

### Preoperative Confirm Diagnosis with Cardiology

Typical ECG findings are RBBB & ST elevation in V1-V3

Be aware of family history

Be aware of AICD

### Intraoperative

Avoid Bradycardia & Vagal stimulation

Ensure K+ & Ca are within normal limits

Avoid Hyperthermia

Avoid Beat blockers, alpha agonists, neostigmine

Avoid class Ia antiarrhythmic (procainamide)

Have resuscitation drugs should be available & treatments

prepared for Cardiac arrest & VF including a Defibrillator

Ensure Atropine, Ephedrine, Isoprenaline are drawn up

### Postoperative

Consider HDU Observation

### References

Anaesthesia for patients with hereditary arrhythmias part I: Brugada syndrome. Levy, D. et al. BJA Education, Volume 18, Issue 6, 159 - 165

**NOT SUITABLE FOR DAY CASE SURGERY AND NEEDS INPATIENT PATHWAY**