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NEWS LETTER OF CLINICAL PHARMACY

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Vision

St.Peter's is committed to generate, disseminate and preserve knowledge and work with pioneers of this knowledge, and to be the most sought after institute globally in the field of pharmaceutical sciences by creating world class pharmacy professionals and researchers.

Mission

To achieve academic excellence with integrity and creating opportunities for leadership and responsibilities through groundbreaking performance in the field of Pharmaceutical Sciences by educating students with pharmaceutical needs of the society and to advance the knowledge through research and to serve the profession and community.

DRUGS:

- WHO Therapeutics and COVID-19 guidelines states that IL-6 receptor blockers are used for the Patients with critical covild-19.
- The following regimen is used against Delta variants of COVID-19 infected patients that includes Monoclonal Antibodies who are non-hospitalized and having high risk of clinical progression:

1. Bamlanivimab 700mg + Etesevimab 1400mg given as IV infusion.
2. Casirivimab 600mg + Imdevimab 600mg administrated through IV or SC
3. Sotrovimab 500mg IV infusion

The following drug combination used in patients who are hospitalized with COVID-19:

1. Dexamethasone + Tocilizumab (IV) and the alternative for Tocilizumab is Sarilumab if Tocilizumab is not available.
2. Casirivimab 600mg + Imdevimab 600mg given through IV/SC for the Patients who are fully vaccinated/partially vaccinated/exposure to COVID-19 and now having the high risk for progression of severe covid.

COMPLICATIONS:

- Acute Respiratory Failure
- Acute Cardiac Injury
- Pediatric multisystem inflammatory syndrome
- Septic shock
- Mucormycosis
- Cytokine release syndrome
- Pancreatic injury
- Aspergillosis
- Disseminated intravascular coagulation
- Blood clots (PE/DVT)
- Subacute thyroiditis
- Acute kidney injury &liver injury
- Chronic fatigue

NEWER TECHNOLOGIES: Portable Respiratory monitoring system, Ventilators with an extended battery, Solar powered O2 concentrator.

FDA Approved Drug List

Drug Name	Date of Approval	Company name	Indication	Mechanism of Action	Precautions	Complications
Nicardipine hydrochloride	06/01/2021	Exela pharma	Short term treatment of hypertension.	Inhibits the transmembrabe influx of calcium ions into cardiac muscle and smooth muscle without changing serum calcium concentration.	Monitor BP & heart rate	Tachycardia, muscle cramps, headache
Vyndamax	06/01/2021	FoldRx Pharms	Cardiomyopathy of wild type or hereditary transthyretin-mediated amyloidosis in adults	Oral transthyretin stabilizer that selectively bind to transthyretin, stabilizing the tetramer of the transthyretin transport protein and slowing the formation of amyloid that causes ATTR-CM.	Overdose, expiration	Difficulty swallowing, fast heartbeat, hives, skin rash, tightness in chest.
Phenytoin	07/02/2021	Vistapharm	Epilepsy	Causes voltage-dependent block of voltage gated sodium channels.		Feeling of spinning, drowsiness, constipation
Carmustine	08/02/2021	Hong Kong	Brain tumor	Causes cross links in DNA and RNA, leading to the inhibition of DNA synthesis, RNA production and RNA translation.	Do not take aspirin and immunisation or vaccination, do not breast feed	Facial flushing, low blood count, burning at injection site
Irbesartan	08/03/2021	Hikma Pharms	Essential hypertension	Irbesartan blocks the vasoconstrictor and aldosterone-secreting effects of angiotensin II by selectively binding to the AT1 angiotensin II receptor.	Do not use when pregnant.	Dizziness, headache, blistering, reddening of skin.

PARANEOPLASTIC PEMPHIGUS

Paraneoplastic pemphigus (PNP) is an Autoimmune disorder stemming from an underlying tumour. It is believed that antigens associated with tumour triggers the immune response results in blistering of the mucous and skin membranes. Patients with malignant and benign tumours are highly at risk with high mortality rates (near 90%).

SYMPTOMS: The five clinical presentations of lesions include:

1. Pemphigus -like: Flaccid blister (discrete), covers the raw exuding skin lesions.
2. Pemphigoid-like: Tense blister(s) on brick red inflammation.
3. Erythema multiforme-like: Severe polymorphic skin and/or mucous membrane lesions.
4. Graft-vs.-host disease-like: Wide spread of lichenoid eruption with more mucous membrane involvement.
5. Lichen planus-like: Tiny red flat-topped scaly papules.

TREATMENT:

Wound healing: Initial treatment involves addressing existing infections that may occurred due to broken state of the skin, Existing wounds are treated with warm compress, non-adherent dressing, and topical antibiotic ointment.

Medication:Prednisone: prednisone is immunosuppressive agent which affects all the organ systems. It effects on cellular level include cell activation, duplication, differentiation, and mobility.

Azathioprine**:** Azathioprine is a steroid and sparing agent used in combination with Prednisone. It acts by inhibiting RNA and DNA synthesis.

Ciclosporin**:** ciclosporin is an immunosuppressive agent most likely used in organ transplantation which is demonstrated to be effective with skin disorders.

Cyclophosphamide: cyclophosphamide is an immunomodulator mostly used in combination with systemic steroids to remove the bone marrow and there by transplanting peripheral blood stem cell.

MONOGRAPH PRESENTATION ON QUINIDINE

Quinidine is a medication that acts as a class 1 anti-arrhythmia agent (1a) in the heart. It is a stereo isomer of quinine.

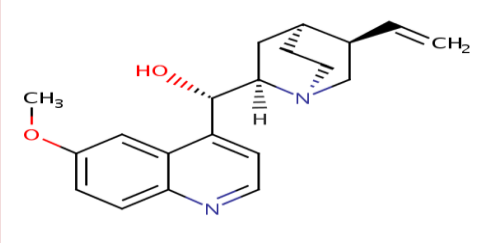
Formula C20H24N202

Classification Class 1a anti-arrhythmic agent

Chemical Name (2-Ethenyl- 4-azabicyclo [2.2.2] Oct- 5-yl) (6 methoxyquinolin-4-yl)- methanol

Brand or Trade Name Quinidex, Quinaglute, Cardioquin, Quinora etc.,

Structure



Dosage forms & Strengths

Usual adult dose: Tablet- 100 to 600mg/ dose orally every 4 to 6 hours;

Usual Paediatric dose: Tablet - 30mg/kg/day or 900mg/m2/day PO

Major Indications Treatment of arrhythmia, short QT syndrome, Suppression of ventricular arrhythmia's, malaria.

Mechanism of action It stabilizes the neuronal membrane by binding to and inhibiting voltage gated sodium channels, inhibiting sodium influx required for initiation and conduction of impulses resulting in an increase of threshold for excitation and decreased depolarization during phase zero of an action potential.

Side effects: Diarrhea, Cinchonism, Marked QT interval prolongation, Decreased myocardial contractility, Torsades de pointes, Hypotension.

Drug Interactions: with digoxin, digitoxin, phenobarbital, phenytoin.

Food Interactions: Grape fruit juice & high salt diet

Legal Classification:POM- Prescription Only Medicine "Schedule H" class

Patient Information: Quinidineshould not be taken if the patient is allergic to it, Avoid consumption of grape fruit or grape fruit juice.Patient may experience dizziness,

headache, tinnitus or flushing.

GOUT AND PSEUDOGOUT GUIDELINES

This guideline recommends the general health, diet, and lifestyle measures for gout patients.

Pharmacologic therapy

Indications for pharmacologic urate-lowering therapy:

Initiating ULT is strongly recommended for gout patients.

Initiating ULT is conditionally recommended against in patients with asymptomatic hyperuricemia.

Choice of initial ULT for patients with gout:

Treatment with allopurinol as the preferred first-line agent, over all other ULTs.

The choice of either allopurinol or febuxostat over probenecid is strongly recommended for patients with moderate-to-severe CKD.

Starting treatment with low-dose allopurinol (≤100 mg/day—lower in patients with CKD)

Duration of ULT:

Continuing ULT indefinitely over stopping ULT is conditionally recommended.

Allopurinol:

Starting allopurinol in daily doses of ≤100 mg (and lower doses in patients with CKD) is strongly recommended over starting at a higher dose.

Febuxostat:

Switching to an alternative oral ULT agent, if available. it conditionally recommended for patients taking febuxostat with a history of CVD or a new CVD-related event.

Uricosurics:

Alkalinizing the urine is conditionally recommended against for patients receiving uricosuric treatment.

Management of lifestyle factors

The ACR conditionally recommends the following for patients with gout, regardless of disease activity:Limiting alcohol intake ,Limiting purine intake ,Limiting high-fructose corn syrup intake