

DRUG CARDS | DAILY



NAME(S): **Generic:** methylprednisolone (meth il pred NIS oh lone) | **Brand:** Medrol Dose Pack, DEPO-Medrol

PHARMACOLOGIC & THERAPEUTIC CLASS: Systemic Corticosteroid

DOSAGE FORM & STRENGTH: **Injectable Solution** (acetate): 40 mg/dose, 125 mg/dose, 500 mg/dose, 1 g/dose, 2 g/dose. | **Injectable Suspension** (acetate): 40 mg/mL, 80 mg/mL. | **Tablet:** 4 mg, 8 mg, 16 mg, 32 mg

INDICATION(S) & DOSING(S): ADULTS

1. **Various Conditions that are Corticosteroid-Responsive:** Tx Dose 4-48 mg/day PO divided 1-4 times daily. Alternative dosing (Dose Pack) of 24 mg PO on day 1. Then decrease by 4 mg/day every 5 days. If long term use or if high doses d/c gradually.
2. **Acute Asthma: [Emergency Department Management]** Tx Dose 40-80 mg/day PO divided 1-2 times daily until peak flow is 70% predicted. **[Outpatient]** Tx Dose 40-60 mg/day PO divided 1-2 times daily for 3-10 days.
3. **Severe Persistent Asthma:** Tx Dose 7.5-60 mg PO qd or qod.
4. **Acute Gout:** Dose pack dosing of 24 mg PO on day 1. Then decrease by 4 mg/day over for 5 days.
5. **Acute Exacerbation of Multiple Sclerosis:** Tx Dose 500-1000 mg PO qd for 3-5 days.
- **OFF LABEL | Acute Alcoholic Hepatitis:** Tx Dose 10-12 mg PO tid.

INDICATION(S) & DOSING(S): PEDIATRICS

1. **Various Conditions that are Corticosteroid-Responsive:** Tx Dose 0.5-1.7 mg/kg/day PO divided q6-12h. Alternative dosing using Dose Pack. 24 mg/day, dec by 4 mg/day over 6 days.
2. **Acute Asthma: [Emergency Department Management]** Tx Dose 1-2 mg/kg/day PO divided 1-2 times daily w/ a max of 60 mg/day continued until peak flow is 70% predicted. **[Outpatient]** Tx Dose 1-2 mg/kg/day PO divided 1-2 times daily for 3-10 days w/ a max of 60 mg/day.
3. **Severe Persistent Asthma:** Tx Dose 0.25-2 mg/kg/dose PO qd-qod with a max of 60 mg/day.

MECHANISM OF ACTION & PHARMACOLOGY

- **MOA:** Methylprednisolone acts in a tissue-specific manner as a corticosteroid. It regulates gene expression by binding to specific intracellular receptors and translocates into the nucleus. As a corticosteroid methylprednisolone has physiologic effects on modulating carbohydrates, proteins and lipid metabolism. It also affects fluid and electrolyte balances. Many body systems are also affected such as the cardiovascular, immune, musculoskeletal, endocrine, and neurologic system(s). Another major effect is a decrease of inflammation through the suppression of leukocyte migration. | The medication is well **absorbed**. | **Excreted** in the urine. | The onset of action for the acetate injection is 1 week w/ the succinate injection w/in 1 hour. | The **time to peak** if taken orally is around half an hour with a possible 2 hour deviation. The intravenous succinate is around 0.8 hours. | The **duration of action** is b/t 1-5 weeks as the intravenous acetate. | The **half-life elimination** in adults if taken orally is between 1.3-3.7 hours and approximately half that time in adolescents.

SPECIAL POPULATIONS & CONSIDERATIONS

- **Elderly or Obese:** Decreased clearance and increased half-life. | **Contraindications and Cautions in following:** Systemic fungal infections, immunosuppressed, hypertension, CHF, recent MI, ulcerative colitis, osteoporosis, cirrhosis, and others. | **Pediatrics:** May cause growth issue and should be monitored. | **Pregnancy:** Caution



advised. May be associated w/ decreased birth weight when used during the first trimester; however, nonfluorinated corticosteroids are preferred when needed in pregnancy in situations such as treating rheumatic disorders. More data needs to be accessed. | **Lactation:** May use while breastfeeding but only 8-12 hours after use.

SIDE EFFECTS

- **Common:** Weight gain, appetite changes, rash, hypokalemia, elevated BP, edema, dizziness, depression, n/v, vertigo, anxiety, and glucose intolerance, among others.
- **Serious:** Adrenal insufficiency, seizures, hypokalemic alkalosis, hypertension, CHF, and long-term use effects (such as osteoporosis, cataracts, glaucoma, immunosuppression, and growth suppression).

DRUG INTERACTIONS

- **Considerations for DI:** CYP3A4 substrate, hyperglycemic or hypertensive effects, lowers seizure threshold, immunosuppressive effects, and hypokalemia.
- **Some contraindicated and drug(s) of note:** Contraindicated w/ live immunizations (i.e. – adenovirus, cholera, influenza, smallpox, typhoid, varicella, yellow fever, and MMR); Avoid drugs such as amphotericin, furosemide, midodrine, and ritonavir.

MONITORING PARAMETERS

- Electrolytes, BP, weight, glucose; and in patients w/ long-term usage: chest x-ray, ophthalmic exam, bone mineral density (BMD) in ages 65 and older.

PATIENT COUNSELING INFORMATION

- Methylprednisolone can be used for many indications which are as follows: **Arthritis, blood disorders, severe allergic reactions, certain cancers, eye conditions, diseases of the skin/kidneys/intestines/lungs, and in immune system disorders.**
- Methylprednisolone is most commonly associated with the treatment of **asthma, allergy signs, blood problems, rashes or swelling.**
- Common side effects are **upset stomach, trouble sleeping, restlessness, and headache.**
- When taking it by mouth it should be **taken with food or milk.**

REFERENCE(S) & RESOURCE(S)

1. <https://online.epocrates.com/drugs/25310/methylprednisolone/Monograph>
2. <https://www.drugs.com/ppa/methylprednisolone.html>
3. <https://www.webmd.com/drugs/2/drug-6470/methylprednisolone-oral/details>

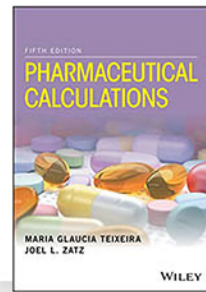


PREPARE FOR SUCCESS!

Comprehensive (NAPLEX)



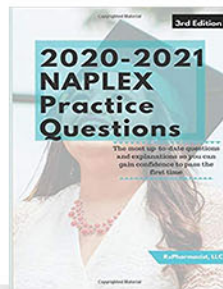
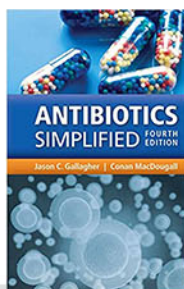
Calculations (NAPLEX)



Pharmacy Law (MPJE)



Supplemental



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DRUG CARDS DAILY

Monday at 7 am EST
(6 am CST, 4 am PST)

HEY NEW GRAD!

So you landed that perfect job offer or got the perfect match for your PGY1 and now the **ONLY** thing standing in your way is passing the NAPLEX and MPJE.

Here are some NAPLEX & MPJE prep recommendations to help you do everything you can to **pass the first time!**

HEY STUDENT!

When I was P1 one of the best pieces of advice I got from those before me was to use a NAPLEX Prep book while learning each topic.

This helps focus your learning and the repetition helps to retain info and indirectly prepare you for the NAPLEX



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