Correction for Spring Issue

The spring issue incorrectly listed the dosing of intravenous fluids for resuscitation as “30 mL/kg/day over 3 hours within diagnosis.”
The correct dosing is **30 mL/Kg/day within 3 hours of diagnosis**.

Continued from page 5: Formulary Update

Remdesivir (Veklury®)

Remdesivir is a SARS-CoV-2 nucleotide analog RNA polymerase inhibitor indicated for adults and pediatric patients (12 years of age and older and weighing at least 40 kg) for the treatment of coronavirus disease 2019 (COVID-19) requiring hospitalization. Remdesivir should only be administered in a hospital or in a healthcare setting capable of providing acute care comparable to inpatient hospital care.

Buprenorphine/naloxone (Suboxone®)

Buprenorphine/naloxone is a sub-lingual film that is used in conjunction with counseling and psychosocial support in patients who are dependent on opioids. In the community, this medication can only be INITIATED by physicians licensed in opioid addiction. IN THE HOSPITAL, patients who are ADMITTED for reasons other than opioid use can continue treatment. This can be ordered by any prescriber as per hospital privileges. Patients can use their own supply or it can be dispensed by the hospital pharmacy.

Tafasitamab-cxix (Monjuvi®)

Tafasitamab-cxix is a humanized CD19-directed cytolytic monoclonal antibody that contains an IgG1/2 hybrid Fc-domain with 2 amino acid substitutions to modify the Fc-mediated functions of the antibody. It is produced by recombinant DNA technology in mammalian cells (Chinese hamster ovary). This is FDA approved for the treatment of adult patients with relapsed or refractory diffuse large B-cell lymphoma (DLBCL) not otherwise specified, including DLBCL arising from low grade lymphoma, and who are not eligible for autologous stem cell transplant (ASCT). Restricted to Luckow.

Trastuzumab/pertuzumab hyaluronidase (Phesgo®)

Trastuzumab/pertuzumab hyaluronidase is a combination of trastuzumab, pertuzumab and hyaluronidase. It is administered as a subcutaneous injection rather than two separate infusions. It is FDA approved for neoadjuvant and adjuvant early HER2 positive breast cancer and HER2 positive metastatic breast cancer. Restricted to Luckow.

Journal of The Valley Hospital Pharmacy

Pharmacy Focus

Volume 21 Summer

FORMULARY UPDATE

Amivantamab-vmjw (Rybrevant®)

Amivantamab-vmjw is a human IgG1 monoclonal antibody that combines two epitopes of the EGFR and MET binding sites. This agent is produced by mammalian cell lineage, through recombinant DNA technology (Chinese hamster ovarian cells). The amivantamab-vmjw heterodimer contains anti-EGFR and anti-cMET monoclonal antibodies which have mutations in F405L and K409R in the CH3 domain of the Fc region, respectively, allowing the stabilization of the two antibody portions to produce one monoclonal body, in a process called Fab arm exchange. By binding to the external EGFR receptor, it is able to circumvent the exon 20 steric hindrance mutation and exert its action. Downregulation of the cMET receptor promotes reduced HGF binding and reduced cMET dimerization, promoting cellular death as well as cMETs inactivated state for a prolonged time. FDA has approved Guardant360 CDx as its assigned companion diagnostic. It is FDA approved for exon 20 mutated non-small cell lung cancer. Restricted to Luckow.

Avelumab (Bavencio®)

Avelumab is a PD-L1 (Programmed Death Ligand 1) antagonist. PD-L1 is a ligand that is commonly found on tumor cells and it is a 40kDa type 1 transmembrane protein. Transmembrane proteins are integral proteins that stretch across the entire cell membrane. It is FDA approved for Metastatic Merkel cell carcinoma, advanced renal cell carcinoma, and locally advanced or metastatic urothelial carcinoma. Avelumab falls along the lines of second-line therapy for metastatic urothelial carcinoma. It has shown a significant increase in progression-free survival and overall survival amongst those who have had successful treatment with platinum-based chemotherapy. Current guidelines recommend a combination of platinum-based chemotherapy is used as first-line therapy in those who have metastatic urothelial carcinoma. Restricted to Luckow.

Casirivimab + Imdevimab (REGEN-COVTM)

Casirivimab and imdevimab are monoclonal antibodies to the spike protein of SARS-CoV-2, blocking attachment to the human ACE2 receptor. The FDA issued an Emergency Use Authorization to allow its use in adult and pediatric patients (12 years of age and older and weighing at least 40 kg) who are at high risk for progression to severe COVID-19 for post-exposure prophylaxis and for treatment of mild to moderate coronavirus disease 2019 (COVID-19) in those with a positive SARS-CoV-2 viral test. Intravenous infusion is strongly recommended for treatment; however, if it is not feasible and would lead to a delay in treatment, subcutaneous injection may be considered as an alternative route of administration. The authorized dosage is subject to change and may be updated as additional information from clinical trials becomes available.

Detectnet

Detectnet (Copper [Cu] 64 dotatate) is a radioactive intravenous diagnostic agent utilized for localization of somatostatin receptor positive neuroendocrine tumors in adult patients. It is designed to be used with positron emission tomography (PET). Studies performed using this drug investigated how well it detects lesions in various parts of the body and determined the optimal dose to perform imaging studies. Overall, this drug may be beneficial in detecting small lesions more efficiently compared to its alternative (Ga 68 dotatate).

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Drug Info Corner

Adedolapo Ademodi-Gbogodo, Pharm.D., MPH
Pharmacist

Question: What is the dosage conversion between immediate release carvedilol and controlled release carvedilol?

Response: Carvedilol is an oral alpha-blocker + beta-blocker, marketed under the trade names Coreg® and Coreg CR® (GlaxoSmithKline, Research Triangle Park, NC).

Carvedilol is FDA-approved for:

- Chronic heart failure
- Left ventricular dysfunction post myocardial infarction (MI)
- Hypertension

It is available as an immediate release TABLET and a controlled release (CR) CAPSULE.[1,2] At The Valley Hospital, the **oral immediate release tablet is on formulary**; the **CR capsule is NOT on formulary.**

When converting between the **immediate release tablet** and **CR capsule**, the following conversion guide is used:[3]

Immediate release tablet dose of carvedilol (Coreg®) Immediate release is dosed TWICE DAILY	Controlled release capsule dose of carvedilol (Coreg CR®) CR is dosed ONCE DAILY
3.125 mg tablet orally twice daily	10 mg capsule orally once daily
6.25 mg tablet orally twice daily	20 mg capsule orally once daily
12.5 mg tablet orally twice daily	40 mg capsule orally once daily
25 mg tablet orally twice daily	80 mg capsule orally once daily

Both dosage forms should be administered with food.[3] Dosage conversions not adhering to this guide will be clarified by the pharmacist and prescriber.

Please reach out to your pharmacist if you have any questions!

References:
1. Carvedilol tablets for oral use package insert [Coreg]. 2017;GlaxoSmithKline, Research Triangle Park, NC.
2. Carvedilol phosphate capsule extended release package insert [Coreg CR]. 2017;GlaxoSmithKline, Research Triangle Park, NC.
3. Carvedilol. Lexi-drugs. Hudson, OH: Lexicomp. http://online.lexi.com accessed July 17, 2021.

Continued from page 1: FORMULARY UPDATE

Dostarlimab-gxly (Jemperli®)

Dostarlimab-gxly is a programmed death receptor-1 (PD-1) blocking IgG4 humanized monoclonal antibody. It binds to the PD-1 receptor and blocks its interaction with PD-L1 and PD-L2, releasing PD-1 pathway-mediated inhibition of the immune response, including the anti-tumor immune response. It is FDA indicated for the treatment of adult patients with mismatch repair deficient (dMMR) recurrent or advanced endometrial cancer, as determined by an FDA-approved test that has progressed on or following prior treatment with a platinum-containing regimen. Restricted to Luckow.

Fluoroestradiol F 18 (Cerianna®)

Fluoroestradiol F 18 is a radioactive intravenous diagnostic agent used with positron emission tomography (PET) imaging to detect estrogen receptor (ER)-positive lesions as an adjunct to biopsy in patients with recurrent or metastatic breast cancer. Generally, this agent is beneficial in assessing estrogen receptor positive breast cancer for treatment planning and decision making. It would work as an adjunct tracer that allows assessment for ER positivity in breast cancer metastasis since the current alternative (FDG PET) does not distinguish ER positivity.

Loncastuximab tesirine (Zynlonta®)

Loncastuximab is a CD19-directed antibody and alkylating agent conjugate, consisting of a humanized IgG1 kappa monoclonal antibody conjugated to SG3199, a pyrrolobenzodiazepine (PBD) dimer cytotoxic alkylating agent, through a protease-cleavable valine-alanine linker. SG3199 attached to the linker is designated as SG3249, also known as tesirine. It is FDA approved for the treatment of adult patients with relapsed or refractory large B-cell lymphoma after two or more lines of systemic therapy, including diffuse large B-cell lymphoma (DLBCL) not otherwise specified, DLBCL arising from low grade lymphoma, and high-grade B-cell lymphoma. Restricted to Luckow.

Lurbinectedin (Zepzelca®)

Lurbinectedin is an alkylating drug that binds guanine residues in the minor groove of DNA, forming adducts and resulting in a bending of the DNA helix towards the major groove. Adduct formation triggers a cascade of events that can affect the subsequent activity of DNA binding proteins, including some transcription factors, and DNA repair pathways, resulting in perturbation of the cell cycle and eventual cell death. It is FDA approved for the treatment of adult metastatic small cell lung cancer (SCLC) with disease progression on or after platinum-based chemotherapy. Usual dosing is 3.2 mg/m^2 IVPB every 21 days until disease progression or unacceptable toxicity. Infuse over 60 minutes. Restricted to Luckow.

Margetuximab-cmkb (Margenza®)

Margetuximab-cmkb is a chimeric Fc-engineered IgG1 kappa monoclonal antibody. It is produced by recombinant DNA technology in a mammalian cell (Chinese Hamster Ovary) culture. It binds to the extracellular domain of the human epidermal growth factor receptor 2 protein (HER2). Upon binding to HER2-expressing tumor cells, it inhibits tumor cell proliferation, reduces shedding of the HER2 extracellular domain and mediates antibody-dependent cellular cytotoxicity (ADCC). It is FDA approved for the treatment of adult patients with metastatic HER2-positive breast cancer who have received two or more prior anti-HER2 regimens, at least one of which was for metastatic disease. Usual dosing is 15 mg/kg IVPB every 21 days. Restricted to Luckow.

Piflufolastat F 18 (Pylarify®)

Piflufolastat F 18 [F18 DCFPyL] is a radioactive intravenous diagnostic agent indicated to be used with positron emission tomography (PET) of prostate-specific membrane antigen (PSMA) positive lesions in men with prostate cancer with suspected metastasis who are candidates for preliminary definitive therapy or with suspected recurrence based on higher serum PSA levels. This agent may be beneficial in its high positive predictive value for restaging metastatic prostate cancer.

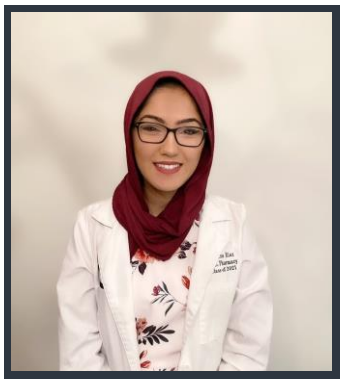
Posaconazole (Noxafil®)

Posaconazole is an azole antifungal which may be beneficial for resistant fungal infections. It is FDA approved for Aspergillosis prophylaxis and treatment in severely immune compromised patients as well as oropharyngeal candidiasis in HIV patients. Current formulary alternatives include voriconazole, which is about four times cheaper, but has higher rates of visual disturbances and hallucinations. Posaconazole should ideally be used to treat more resistant infections, and infections that are refractory to voriconazole or fluconazole. Like voriconazole, posaconazole must have trough levels taken after 24 hours and then until a steady state is reached.

Continued on page 6……

Meet our NEW Post-Doctoral Pharmacy Residents

The Valley Hospital Pharmacy Residency Program is nationally accredited by the American Society of Health-System Pharmacists. Upon graduation from schools of pharmacy, pharmacists may choose to further their education through a one-year long post-doctoral residency. This additional training exposes new practitioners to the different aspects of the practice of pharmacy, offers the opportunity to manage special patient populations, and allows application of knowledge and skills in participating as an interprofessional team member. We are proud to announce the two residents for our July 2021 – June 2021 residency class.



Aarezo Riaz, Pharm.D.

Aarezo Riaz grew up in Herndon, Virginia and earned a Doctor of Pharmacy from Virginia Commonwealth University School of Pharmacy in 2021. Prior to pharmacy school, she earned her Bachelor of Science degree in biology with a minor in data analysis at George Mason University.

Aarezo is thrilled to join TVH as the PGY1 Community-based Pharmacy Resident. She chose Valley because of the services offered to patients and a strong sense of community. She is passionate about patient safety and always provides personalized care with all of her patients. Her areas of interest include ambulatory care, transitions of care, and academia. Outside of pharmacy, Aarezo enjoys hiking, traveling, exploring local restaurants and boba shops, and spending quality time with her family, friends, and cat Miso.

Jennifer Nacion, Pharm.D.

Jennifer Nacion grew up in Wyckoff, New Jersey, and earned a Doctor of Pharmacy degree from Northeastern University in May 2021, where she also earned a Bachelor of Science degree in pharmaceutical sciences with a minor in psychology.

Jennifer is excited to join The Valley Hospital team of healthcare providers as a PGY1 resident. She seeks to provide patients with excellent care and strives to advance the field of pharmacy. Her areas of interest include ambulatory care, cardiology, and teaching. During her free time, Jennifer is passionate about working out and is an avid CrossFitter. She also enjoys traveling, nutrition, and spending quality time with her family and friends.

Pharmacy Residency Program Preceptors of the Year

Each year, the outgoing pharmacy residents elect two preceptors who went above-and-beyond in teaching and mentoring, and in the practice of pharmacy.

We are proud to announce the Pharmacy Residency Program Preceptors of the Year for 2020-2021. Thank you to everyone who works with our residents to make the program a success!

PGY1 Community-Based Pharmacy Residency Preceptor of the Year

Raymond Hawash, Pharm.D., BCPS
Specialty Clinical Pharmacist

PGY1 Pharmacy Practice Residency Preceptor of the Year

Brianne Traub, Pharm.D.
Supervisor of Retail Pharmacy Services