

Recertification Guide Addendum

*Nuclear Pharmacy
Nutrition Support Pharmacy
Oncology Pharmacy
Pharmacotherapy
Psychiatric Pharmacy*

*Application Deadline-
August 1, 2010*

Test Date- October 2, 2010



For individuals taking BPS written recertification examination

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Important Dates

Deadline for requesting an alternate site*- July 1, 2010

or alternate date**- July 1, 2011

Postmark deadline for applications

August 1, 2010 August 1, 2011

Last Day to withdraw or change test site

September 1, 2010 September 1, 2011

Examination Date

October 2, 2010 (All BPS Specialties)

October 1, 2011 (All BPS Specialties)

**a group of ten (10) or more applicants may request that an examination be administered at an alternate site. Requests*

for alternate sites in Alaska, Hawaii and foreign countries will be reviewed on a case by case basis, if the requirement of 10 candidates cannot be met. Complete details on requesting an alternate examination site, including appropriate forms, are available from BPS. Requests for alternate sites along with all application forms must be submitted in writing, no later than July 1.

***Candidates who because of religious reasons cannot sit for an examination on Saturday may request an alternate test date. See page 2 for details.*

RECERTIFICATION INFORMATION HIGHLIGHTS

General Information

Recertification assures the public and the profession that certified practitioners undergo periodic evaluation. The Board of Pharmacy Specialties (BPS) requires all board-certified specialists to recertify every seven years. To be recertified, an individual must hold a current active license to practice pharmacy and must meet the additional requirements for recertification as described in this Guide.

BPS endorses the principle of equal opportunity. Eligibility criteria for recertification under the Board of Pharmacy Specialties program are applied equally to all applicants regardless of age, sex, ethnic origin, race, religion, disability, marital status, veteran status, or sexual orientation.

Recertification Fee

Candidates eligible for recertification should apply online at www.bpsweb.org, no later than August 1, 2010. The fee for recertification is \$400 regardless of the specialty or the method of recertifying (examination or CE). Application fees are due at the time of application.

Any outstanding annual registration fees, plus a 5% penalty, must be also paid at the time of registration.

All fees are subject to change at the sole discretion of the Board

Name and/or Address Changes

It is the responsibility of each certified pharmacist specialist to promptly notify BPS, in writing, of any changes in his/her name or address. Notification for admission to the examination, mailing test results, maintenance of certified status and renewal of certification depends on the Board having current information

EXAMINATION INFORMATION

Test Dates

The dates of upcoming BPS Recertification Examinations are Saturday, October 2, 2010 and Saturday, October 1, 2011. All BPS Recertification Examinations are administered once a year, on the same date and at the same sites as the Specialty Certification Examinations. While BPS examinations are normally administered on Saturdays, BPS policy does provide for an alternate test site date for religious reasons (see below)

Alternate Test Date

BPS will provide an alternate date for administration of recertification examinations in order to accommodate candidates whose religious affiliations prevent them from participating in an examination on Saturday. The alternate date is normally the Sunday immediately following the Saturday administration of the examination. The fee to secure and staff a test site on an alternate date is \$750, payable by the requestor. This fee is in addition to the \$400 recertification fee.

Requests for an alternate date administration must be submitted, in writing to BPS, along with the completed application and appropriate fees. This request is due on or before July 1. The request must be accompanied by an original letter on letterhead from a leader of the candidate's religious community indicating specific reason for the request. All candidates requesting an alternate test date will be advised of their eligibility to sit for the examination, as well as their test date and site by August 1.

Test Sites

BPS will establish test sites in 35 cities for the administration of its specialty certification and recertification examinations. Notification of the exact locations of testing rooms is provided with the candidate's Admission Permit. Candidates must indicate their preferred test site in the space provided on the application form.

The Board reserves the right to cancel a site if there are an insufficient number of applicants for the site. BPS also reserves the right to close a test site to those who wish to change test sites after the application deadline (August 1), if the number of original applicants fills a site to capacity.

US Test Sites

Atlanta, GA	Detroit, MI
Baltimore, MD	Houston, TX
Boston, MA	Indianapolis, IN
Chapel Hill, NC	Jacksonville, FL
Charleston SC	Kansas City, MO
Chicago, IL	Los Angeles, CA
Cincinnati, OH	Memphis, TN
Dallas, TX	Miami, FL
Denver, CO	Omaha, NE

Minneapolis, MN
Philadelphia, PA
Phoenix, AZ
Pittsburgh, PA
Portland, OR
Salt Lake City, UT
St. Louis, MO
San Antonio, TX
San Francisco, CA
Seattle, WA
Rochester, NY
Tampa, FL

Foreign Test Sites

Al Ain, United Arab Emirates
Jeddah, Saudi Arabia
Madrid, Spain
Riyadh, Saudi Arabia
Seoul, Korea

The Board does not provide hotel or travel recommendations. Candidates are encouraged to use their own travel agent or one of the search engines on the World Wide Web to locate travel hotel accommodations near a test site, maps, and driving instructions for a particular test site.

Alternate test sites may be requested by groups of ten or more applicants. (See below)

Alternate Test Sites

Any group of ten or more interested individuals may request an alternate test site. The candidate group may represent any combination of BPS-recognized specialties (Nuclear Pharmacy, Nutrition Support Pharmacy, Oncology Pharmacy, Pharmacotherapy, and Psychiatric Pharmacy). The candidate group may contain candidates for both certification and recertification examinations.

Within the contiguous 48 states: Applicant groups must have at least 10 individuals committed to sitting for a BPS exam. No additional fee will be charged for establishing an alternate test site in the contiguous 48 states. Alternate exam sites must be at least 200 miles from any of the BPS-designated test sites listed above, or be preapproved by BPS.

Alaska, Hawaii, Puerto Rico and foreign countries: Groups with fewer than 10 candidates in Alaska, Hawaii, Puerto Rico and foreign countries that request an alternate site will be required to pay a proctor fee of \$500. If the group cannot identify a test center that meets BPS specifications, BPS' testing consultant will provide a site for a fee of \$250. Payments must accompany the request for establishing an alternate site.

All requestors: Request forms and complete details on requesting an alternate test site are available from BPS and can also be accessed on the BPS web site www.bpsweb.org. Requests for alternate sites must be submitted, in writing, to BPS by **July 1**, and must be accompanied by ALL applications and fees from those requesting the alternate site. All candidates requesting an alternate site will be advised of their eligibility to sit for the examination, as well as the designation of the alternate site, by August 1. BPS will not be responsible for notifying other candidates or the profession-at-large of these designated alternate sites.

Examination dates for BPS specialty recertification examinations are set by the Board and remain the same regardless of site.

DANTES Program

Overseas military pharmacists may sit for BPS recertification using the DANTES program through the Military Education Centers. For additional information, contact BPS directly or visit www.dantes.doed.mil

Transferring Test Sites

Candidates wishing to transfer test sites must do so IN WRITING and the request must be received by BPS by September 1 for the October test date. Requests should be sent to BPS, 2215 Constitution Avenue, Washington, DC 20037; Fax: 202 429-6304; email: bps@aphanet.org.

Inclement Weather and Cancellations

The safety of all candidates is of the utmost concern to BPS. Reasons for canceling an examination administration may include, but not be limited to, adverse weather conditions and natural disasters. BPS will consult with its testing agency and on-site Chief Examiners to determine the status of affected test sites. If the examination administration is canceled, BPS will work with its testing agency and the on-site Chief Examiner to place notices with local news services indicating the examination's cancellation. Notice will also be posted on the BPS web site www.bpsweb.org. No alternate date will be scheduled.

If an examination is canceled for weather-related and/or safety concerns, candidates will be offered a refund of their full fee paid. BPS, however, is not responsible for any personal costs or expenses incurred by candidates in the event an examination administration is canceled.

Processing Applications

All recertification candidates are encouraged to submit their applications online. Candidates who submit an application by mail or fax will be notified by e-mail of their eligibility to sit for the examination within 10 working days of BPS' receipt to allow for processing of the application. If for any reason an application is rejected, the entire fee is refunded and the application and all documentation are returned to the candidate along with a letter explaining why the application was not accepted. Incomplete applications may be returned to candidates by mail without being processed. Candidates who submit applications electronically will be notified if their application is incomplete or rejected by email confirmation.

For identification purposes, a unique Candidate Number is assigned to each eligible applicant by BPS when an application is processed. Candidates should keep a record of this number and use it in all correspondence with BPS.

Candidates will receive an Admission Permit within two weeks prior to the examination date. This permit notes the

candidate's name and address as they appear in the official BPS files, Candidate Number, testing site and room name, and starting time for the examination. This admission permit, along with valid picture identification with a signature, MUST be presented at the examination site to gain admission to the testing room. If a candidate has not received this permit at least 5 days before the examination, BPS should be notified immediately by phone (202-429-7591) or email (bps@aphanet.org).

Request for Extension

Candidates seeking recertification who believe that they will not be able to sit for recertification examination on the scheduled date or who believe that they will not be able to complete all the required CE by December 31 of the year in which they are to recertify, may request an extension of their certification status. *This request must be in writing, must provide specific reason for not being able to sit for the examination or to meet the December 31 deadline for CE, and must be received by BPS by December 31 of the year in which the candidate is to recertify.*

A recertification application and the \$400 recertification fee must be submitted prior to or with this request for extension. All requests will be reviewed on a case-by-case basis. The Board may grant a one-year extension on a one-time only basis. All recertification requirements must be completed by the end of the one-year extension or that individual's certification will lapse and his/her name will be removed from the official roster of BPS- certified pharmacist specialists.

If no request for extension is received by BPS and the candidate fails to appear for examination or fails to achieve the required amount of CE from a BPS-approved program by December 31, that individual's certification will lapse and his/her name will be removed from the official roster of BPS-certified pharmacist specialists. Once certification has lapsed, reinstatement can be achieved only by the successful completion of the entire certification process.

Retaking the Examination

If a recertification candidate fails to achieve a passing score on the examination, retaking the examination must take place the following year. During this period, the individual's certification remains active. The fee for retaking the examination is \$200. Candidates who wish to retake the examination will be asked to submit an abbreviated application form supplied by BPS. If the recertification candidate does not retake the examination with the one-year period, the individual's name is permanently removed from the official roster of BPS-certified pharmacist specialists. Once removed permanently from the roster, reinstatement can be achieved only by the successful completion of the entire certification process.

Withdrawal

Withdrawal from the recertification examination process is not permitted, except under emergency situations. Requests

for medical and personal emergency withdrawals are reviewed by the BPS Executive Director and decisions are made on a case-by-case basis. Supporting documentation (physician's letter, police report, etc.) must be in writing and must be received at the BPS office no later than SEVEN days after the examination date. It may be accompanied by a request for a one-time; one-year extension under the extension policy, based on inability to sit for the examination due to the emergency. Candidates who withdraw from the certification process will be refunded the fee paid, less an administrative charge of \$100. Refunds will be processed within three to five weeks after the examination date.

Americans with Disabilities Act

The Board of Pharmaceutical Specialties complies with the relevant provisions of the American with Disabilities Act (ADA). If you have a disability and require accommodations under this Act during the certification examination, please complete and submit the "Accommodation Request Form," along with the application form. All application forms and requests for accommodations must be postmarked no later than **August 1**.

It is the individual's responsibility to complete all applicable parts of this form if an accommodation is being requested. Supporting documentation must be supplied regardless of the method of submitting the application (electronic, fax, mail). Professionals submitting documentation in support of a candidate's request for accommodation may be contacted by BPS for clarification of any information provided concerning the requested accommodations. Failure to notify the Board of needed accommodations by August 1 may result in the accommodations not being available at the time of the examination.

Information for Foreign Licensed Candidates

BPS recertification is oriented primarily toward pharmacists licensed and practicing in the USA. Recertification applicants who are not licensed to practice in the USA need only provide a photocopy of their current, active legal authorization to practice pharmacy in their country of origin or residence, along with their application form.

Throughout BPS specialty recertification examinations, all measurements from laboratory test results are expressed in traditional units. For those candidates whose pharmacy practice site is outside the United States, a conversion chart from traditional units to standard international units will be provided.

The Board is aware that examination questions dealing with regulatory issues in the USA are not necessarily pertinent to candidates who practice in foreign countries. However, all candidates are given the same examination and are held to the same standard of achievement, regardless of the country in which they practice and the regulations under which they practice.

Please note BPS certification does not confer the privilege to practice pharmacy in the USA or in any other country.

EXAMINATION ADMINISTRATION

Examination Format and Content

BPS recertification examinations contain 100 questions from the current year's Specialty Certification Examination. Recertification examinations test all domains of the specialty, according to the content outline of the current certification examinations. The multiple-choice format is used exclusively. Four possible answers are provided for each question, with only ONE designated as the correct or best choice. It is to the candidate's advantage to answer every question on the examination, since the final score is based on the total number of questions answered correctly. There is no penalty for selecting an incorrect choice. Each question is carefully written, referenced, and validated to determine its accuracy and applicability.

A recertification examination does not attempt to test all of a candidate's knowledge in the specialized practice area. The examination samples the knowledge and skills required to perform the tasks in each of the major areas of responsibility of the specialty as defined through a role delineation study. Examinations are not structured domain by domain. Rather, items testing each domain are distributed randomly throughout the total examination. While BPS examinations test the stated domains of each specialty, candidates are advised that the examinations will probably not address all of the knowledge statements listed under the domains in the content outline of the examination.

A Content Outline, listing the domains, tasks, and knowledge statements specific to each specialty practice, is provided for the information of prospective candidates on the BPS website or upon request. The Content Outline also notes the percentage of items per domain. Examination content outlines are developed through a nationwide study of the work pharmacy specialists perform in a variety of practice settings.

New regulations, drugs and therapies are incorporated annually into the examinations. All BPS specialty certification examinations reflect current, best practice at the time they are constructed – approximately six months prior to test administration. Official United States Adopted Name (USAN) generic names are used on all BPS examinations for all drug products, when possible.

Administration of the Examination

BPS will administer recertification and certification examinations on the same date, at the same time, at the same sites and normally in the same room. The examination day schedule for recertification candidates is provided below. Candidates may complete and return the examination materials to proctors before the scheduled end of the test session

<u>Activity</u>	<u>Time</u>
Admit candidate to Room	8:00am
Test Instructions	8:30am
Test Session (100 items)	9:00am
End of Test	11:30am

On the day of the examination, all candidates must present their Admission Permits and valid photo identifications with signature (e.g., driver's license, hospital identification, passport) in order to be admitted into the testing room. Candidates who arrive without both valid photo identification and an admission permit will not be admitted to the examination, and their fees will be forfeited.

Candidates must provide their own sharpened #2 (or 2B) pencils, a good eraser and hand-held, silent, non-printing, battery or solar-powered calculator for use during the examination. All non-test materials such as books, papers, cell phones, pagers, cameras, recorders, purses, hats, and jackets must be stored in areas designated for that purpose.

Test instructions will be provided to candidates on the use of the answer sheets. Only answers properly marked on the answer sheet will be scored. Answers written in the test book will not be scored. The test booklet and answer sheet are the property of BPS. **BOTH must be returned to the proctors at the end of the examination.**

Security

BPS and its testing agency maintain examination administration and security standards that are designed to assure that all candidates are provided the same opportunity to demonstrate their abilities. The testing sites are monitored by proctors for security purposes. Candidates will be allowed to leave the room during the test administration to use the rest room facilities. Only one person will be excused from the room at a time and a proctor will accompany the individual to and from the rest room. Candidates are encouraged to place their answer sheet inside the examination booklet whenever they leave their seats.

Before beginning the examination, candidates will be asked to read and sign the *Statement of Confidentiality*. This statement restricts candidates from sharing any information about the examination with other individuals, including discussions with fellow test takers following the examination, and the sharing of information with colleagues who might be planning to take the examination in the near future.

Chief Examiners are authorized by BPS and its testing agency to maintain a secure and proper test administration environment. This may include the relocation of candidates prior to or during the examination and/or the dismissal of candidates from the examination. Candidates will be inspected for devices such as hand-held scanners, cameras, tape recorders, or other electronic equipment. Areas around the testing room (e.g. hallways, restrooms, telephone stalls) are monitored throughout the examination for security purposes.

Candidates may not communicate with other candidates during the examination. Anyone who provides or receives assistance during the test administration will be dismissed from the testing room. Candidates may not photograph, record, or memorize any examination material. Other causes for dismissal include, but are not limited to: using notes, references, or any test aids; using unauthorized calculators (cf. below); causing a disruption to the test environment; and removing any examination material from the testing site. Candidates who are dismissed from the testing room forfeit all fees.

Candidates' calculators and wristwatches will be checked prior to admission to the testing room for word processing capabilities. If either is found to be a word processor, it will be confiscated by a proctor and returned at the end of the test day.

Personnel from the Board of Pharmacy Specialties, its Specialty Councils, the BPS testing agency, and/or their delegates will proctor the examination. No one is permitted in the testing room during the examination except for the candidates and persons authorized by BPS and/or by the testing consultant.

Statement of Confidentiality for BPS Examinations:

1. This examination and the test questions contained herein are the exclusive property of BPS.
2. This examination and the test questions contained herein are protected by copyright law. No part of this exam may be copied or reproduced in part or whole by any means whatsoever, including memorization.
3. The theft or attempted theft of an examination booklet is punishable as a felony.
4. My participation in any irregularity occurring during this examination, such as giving or obtaining unauthorized information or aid, as evidenced by observation or subsequent analysis, may result in termination of my participation, invalidation of the results of my examination or other appropriate action
5. Further discussion or disclosure of the content of the examination orally, in writing or by any other means is prohibited.

My signature indicates that I have read, understood and agree to be bound by the statement of confidentiality. Failure to comply can result in termination of my participation, invalidation of the results of my examination or other appropriate action.

Use of Calculators

In order to provide a realistic environment for performing calculations in the solution of practice problems, hand-held, silent, non-printing, battery or solar powered calculators may be used. Hand-held calculators that contain addition, subtraction, multiplication, division, and log functions are

appropriate for the examination. Candidates may NOT use calculators or any other devices that have either word processing or word storage capabilities (complete A-Z keypad). All calculators will be examined by a proctor before a candidate is admitted to the examination area. Candidates are responsible for providing their own calculators.

Scoring Procedures

Recertification examinations are prepared by BPS Specialty Councils to assess practice-based knowledge and skills. Candidates' scores are determined by the total number of items answered correctly. Criterion-referenced, standard-setting procedures are used to establish the passing score for all BPS examinations.

Answer sheets are scored electronically. Candidates who do not achieve a passing score on the examination may request a hand scoring of their answer sheet. Requests for hand scoring of the answer sheets must be submitted to BPS, in writing, within 90 days of the candidates' receipt of his/her score report. A check or money order for fifty dollars (\$50) must accompany the request for hand scoring.

Score Reporting

Confidential score reports are sent directly to each candidate by first-class mail. Each score report contains the following information: passing score, candidate's score, maximum score, average score, standard deviation and range of scores. Total scores are reported, as well as scores by domains.

The standard turn-around time required to score, analyze, report scores and grant certification is approximately sixty days. A certificate suitable for framing and a BPS lapel pin are sent to newly certified specialists approximately sixty days after notification of certification.

Application to take the recertification examination constitutes written authorization for the testing agency to release that candidate's score to BPS and to the examinee ONLY. Group performance data will be utilized by the testing agency, the Specialty Council, or others designated by BPS, for purposes of research and development and for reporting to the profession.

Access to a candidate's score report is limited to those staff at BPS and the Board's testing consultant who are involved in the processing and mailing of these reports. BPS will not release personal exam information (other than name/address of certified individuals under established policy) without written authorization.

In order to protect the security and integrity of the specialty certification examinations, neither BPS nor its testing agency release examination questions, answer sheets, or the answer key to any individual or agency. While all efforts are made by BPS, its' Specialty Councils, and its testing agency to produce completely accurate examinations, occasional errors do occur.

If a candidate believes there is an error in an examination question, the on-site proctor should be advised at once and the candidate should contact BPS immediately after the examination.

PREPARING FOR THE EXAMINATION

The Board publishes the content outline specific to each examination and strongly encourages candidates to become thoroughly familiar with this document. Content outlines are occasionally modified to reflect changes in practice. Candidates should ensure that they are using the current outline for their specialty. Current content outlines are posted on the BPS web site or are available upon request from BPS.

Suggested preparation for the examination might include:

- residency or other formal training;
- the study of journal articles, textbooks or other publications related to the content outline;
- continuing education programs and courses in specialized pharmacy practice;
- study groups and examination preparation courses;
- reviewing sample test questions printed in this Guide or on the BPS website.

Potential applicants may contact the organizations noted below which offer review/preparatory courses and materials for the specialty or specialties listed to determine program content, relevance to the BPS examinations and availability.

BPS and its Specialty Councils neither sponsor nor endorse training or educational opportunities in specialized practice areas, or review/preparatory courses for any of the BPS examinations.

Contact the organization for more information. This is not intended to be a comprehensive list of sources.

For Oncology Pharmacy and Pharmacotherapy:

American College of Clinical Pharmacy
(913) 492-3311 • FAX (913) 492-0088
www.accp.com

For Nuclear Pharmacy:

University of New Mexico College of Pharmacy
Office of Continuing Pharmacy Education
(505) 272-3125 • FAX (505) 272-6749
hsc.unm.edu/pharmacy/radiopharmacyCE

For Nutrition Support Pharmacy:

American Society for Parenteral and Enteral Nutrition
(301) 587-6315 • FAX (301) 587-2365
www.clinnutr.org

For Oncology Pharmacy and Psychiatric Pharmacy:

American Society of Health-System Pharmacists
(301) 657-4383 • FAX (301) 652-8278
www.ashp.org

For Oncology Pharmacy

Hematology Oncology Pharmacy Association
(877) 467-2791
www.hoparx.org

For Psychiatric Pharmacy:

College of Psychiatric and Neurologic Pharmacists
(402) 476-1677
www.cpnpp.org

SAMPLE EXAMINATION QUESTIONS

The following sample questions provide candidates with an opportunity to review the FORMAT of questions used on BPS specialty certification examinations. Four possible answers are provided for each question, with only ONE designated as the correct or best choice. This multiple-choice format is used exclusively on BPS examinations.

Practice tests for each specialty are also available on the BPS website at www.bpsweb.org. Consult them for more specialty-specific examples of questions.

SAMPLE:

A 35-year-old, 70 kg patient was examined by his family physician for a complaint of right-sided abdominal pain for 6 weeks, and nausea. A CT scan of the abdomen revealed a solid bulky mass within the retroperitoneum. The patient underwent an exploratory laparotomy and the mass (8.0 x 7.0 cm) was removed. The patient was diagnosed with advanced testicular cancer and underwent a right orchiectomy. He has now been admitted for his first cycle of cisplatin, vinblastine, and bleomycin (PVB). In addition to corticosteroids, which of the following antiemetic regimens would be the best choice for antiemetic to provide for prevention of acute emesis?

- *1. Ondansetron
2. Metoclopramide
3. Prochlorperazine
4. Haloperidol

SAMPLE:

The GUSTO-1 trial evaluated four thrombolytic strategies for acute myocardial infarction. The investigators studied 41,021 patients with evolving myocardial infarction. A total of 1,081 hospitals in 15 countries participated in the trial, which was conducted from December 1990 to February 1993. The authors found a 14% reduction in the mortality for accelerated tissue plasminogen activator (t-PA) as compared with two streptokinase-only strategies ($p=.001$). The mortality rates for the four treatment groups are reported below:

Regimen#	Thrombolytic Strategy	30 day -mortality rates
1.	Streptokinase and i.v. heparin	7.4%
2.	Accelerated t-PA and i.v.heparin	6.3%
3.	Streptokinase and s.c.heparin	7.2%
4.	t-PA and streptokinase and i.v.heparin	7.0%

Considering the results, for every 100 patients treated, how many more patients would benefit (i.e., demonstrate reduced 30-day mortality) after receiving accelerated t-PA (Regimen #2) rather than streptokinase and i.v. heparin (Regimen# 1)?

1. 0.1.
- *2. 1
3. 7
4. 11

SAMPLE:

For a state of equilibrium to occur in a radionuclide generator:

- *1. The parent/daughter half-life ratio must be greater than 1.
2. The daughter radionuclide must be a stable isotope.
3. Elution must occur daily.
4. The daughter radionuclide should exhibit branched decay.

SAMPLE

An 80-year-old ambulatory female patient with hypertension receiving captopril 50mg twice daily requires a second antihypertensive agent for optimum blood pressure control. History includes diet-controlled diabetes mellitus, chronic obstructive pulmonary disease, mild left ventricular hypertrophy (LVH) and mild dementia. Serum creatinine = 2.5 mg/dL; BUN = 30 mg/dL. Which of the following antihypertensive agents should be added to the regimen?

1. Prazosin
- *3. Metoprolol
2. Verapamil
4. Hydrochlorothiazide

SAMPLE:

A patient with Type 2 diabetes reports vomiting, somnolence, epigastric pain, anorexia, hyperventilation, diarrhea, and thirst. Medications include enalapril 20 mg q.d.; hydrochlorothiazide 25 mg q.d.; metformin 2000 mg q.d.; and digoxin 0.25 mg q.d. Serum creatinine = 2.0 mg/dL, blood glucose = 365 mg/dL, pH = 7.2, anion gap = 20. Which adverse drug effect is the patient most likely experiencing?

1. Renal tubular acidosis secondary to enalapril
- *2. Lactic acidosis secondary to metformin
3. Respiratory acidosis secondary to compensation for metabolic alkalosis from hydrochlorothiazide
4. Metabolic acidosis secondary to hydrochlorothiazide/digoxin

SAMPLE:

A 67-year-old patient with Parkinson's disease presents with mildly erythematous scaly plaques distributed in a butterfly-like pattern across the face and extending into the nasolabial folds. Scaling and flaking are also present in the patient's beard, eyebrows, scalp and behind his ears. Regimen is as follows: phenytoin, 300 mg h.s., for seizures following a stroke that occurred last year; amantadine, 100 mg b.i.d., for mild bradykinesia and rigidity; and augmentin, 250 mg t.i.d. x 10 days, for a recent upper-respiratory infection. The patient has no fever and claims that the lesions, which itch "a little bit," have been present for several years but have become more noticeable over the past month. Which of the following best describes how this problem should be managed?

- *1. Explain that the condition is seborrheic dermatitis, common in patients with Parkinson's disease and is not caused by drug therapy; treat with hydrocortisone cream 1% to affected areas b.i.d.
2. Call the patient's neurologist for evaluation and monitoring of the lesions for possible progression to Stevens-Johnson syndrome; discontinue phenytoin and substitute valproic acid.
3. Recommend that the patient stop using the augmentin, because of drug allergy, and call the patient's prescriber.
4. Explain that the condition is livedo reticularis, a harmless reaction to amantadine that requires no treatment.

SAMPLE:

A well-nourished 36 year-old male was transferred to the surgical ICU following an exploratory laparotomy for a gun shot wound to the abdomen. Transfer orders included continuous nasogastric suction, IM morphine for pain, cefoxitin, 2 gm IVPB q8 hr, and D5-Normal Saline, 85 ml/hr. On admission to the SICU, his serum electrolytes were normal. The patient remained NPO due to continued intestinal ileus, the nasogastric suction volume averaged 2000 ml daily, and the patient's weight was unchanged. Laboratory values on the 3rd post-op day were:

Sodium	137mEq/L	(normal=135-147mEq/L)
Potassium	3.8 mEq/L	(normal=3.5-5.0mEq/L)
Chloride	89 mEq/L	(normal=95-105mEq/L)
CO3	37 mEq/L	(normal=22-28mEq/L)
Glucose	111 mg/dL	(normal=70-110mg/dL)
BUN	22mg/dL	(normal= 8-18mg/dL)
Creatinine	1.2mg/dL	(normal= 0.6-1.2 mg/dL)

Which of the following therapeutic recommendations is appropriate at this time?

1. Initiate TPM due to prolonged period on NPO status
- *2. Initiate parenteral ranitidine therapy to reduce gastric acidity
3. increase IV infusion rate to match nasogastric output volume
4. change IV infusion to D5-Lactated Ringers at same infusion rate

**correct choice*

Vision Statement

The Board of Pharmacy Specialties will be the premier post-licensure certification agency serving the needs of the pharmacy profession and the public.

Mission Statement

The Mission of the Board of Pharmacy Specialties is to improve patient care through recognition and promotion of specialized training, knowledge, and skills in pharmacy and specialty board certification of pharmacists.

We will accomplish this mission by:

- Providing leadership for the profession of pharmacy in the discussion, evolution, direction and recognition of specialty board certification of pharmacists;
- Establishing and promoting, in collaboration with stakeholders, the value of pharmacy specialization and board certification;
- Establishing the standards for identification and recognition of pharmacy specialties;
- Establishing standards of eligibility, knowledge and skills as the basis for board certification;
- Developing and administering a valid process to evaluate the knowledge and skills of pharmacists.



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