

William S. Middleton VA Interprofessional COPD Service

COPD Action Plan

Molly Obermark, PharmD, PGY-1 Clinical Pharmacy Resident

Date Recorded: 9/03/2017



Objectives

Roadmap:

Patient Instruction
Considerations



COPD Action Plan



Veteran Scenario



CPRS
Documentation/Postings

- Discuss the role of the COPD Action Plan in veteran decision-making for COPD symptom development and exacerbations
- Review the COPD Action Plan, step by step, for use in accordance with the COPD CARE service
- Apply the COPD Action Plan to sample veteran scenarios

Patient Instruction Considerations

- **Health literacy** and patient understanding
 - Utilize teach-back method and pause for questions
- Veteran self-determination of **baseline symptoms**
 - Sputum color, taste, smell
- Identification of veteran **inhalers**
 - Color of inhalers/review of medication appearance
- Review **rationale** for action plan
 - Add insight to recognize changes in symptoms and select home-based treatment versus ER/hospital

VA



U.S. Department
of Veterans Affairs
William S. Middleton
Memorial Veterans Hospital

COPD ACTION PLAN

Date: _____

| | | | |
|---|---|---|--|
| <p>GREEN ZONE</p> | <ul style="list-style-type: none"> <input type="checkbox"/> Breathing is normal <input type="checkbox"/> Usual cough and amount of mucus <input type="checkbox"/> Able to do daily activities and exercise <input type="checkbox"/> Sleep well and good appetite | <ul style="list-style-type: none"> <input type="checkbox"/> Take daily medication(s): _____ <input type="checkbox"/> For increased shortness of breath and cough, use rescue medicine: _____ <input type="checkbox"/> Use Oxygen and/or CPAP as prescribed <input type="checkbox"/> Continue regular exercise/diet plan <input type="checkbox"/> Avoid cigarette smoke and inhaled irritants | |
| | <p>YELLOW ZONE</p> | <ul style="list-style-type: none"> <input type="checkbox"/> Ongoing Shortness of breath, cough, or increased mucus amount for 1-2 days | <ul style="list-style-type: none"> <input type="checkbox"/> Start prednisone: _____ <input type="checkbox"/> Use rescue inhaler OR nebulizer scheduled <input type="checkbox"/> Continue GREEN ZONE medications |
| <p><u>AND</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Change in mucus color to yellow or green | | <ul style="list-style-type: none"> <input type="checkbox"/> Start prednisone: _____ <input type="checkbox"/> Start antibiotic: _____ <input type="checkbox"/> Use rescue inhaler OR nebulizer scheduled <input type="checkbox"/> Continue GREEN ZONE medications | |
| <p>RED ZONE</p> | <ul style="list-style-type: none"> <input type="checkbox"/> Rescue inhaler does not help <input type="checkbox"/> Fever, chills, chest pain, or coughing up blood <input type="checkbox"/> Severe shortness of breath <input type="checkbox"/> Not able to talk, sleep, or do any activity because of trouble breathing | <div style="border: 2px dashed black; padding: 10px; text-align: center;"> <p>Seek urgent medical care</p> <p>Call 911</p> <p>Or have someone take you to the nearest Emergency Department</p> </div> | |

VA



U.S. Department
of Veterans Affairs
William S. Middleton
Memorial Veterans Hospital

COPD ACTION PLAN

Date: _____

GREEN ZONE

- ☐ Breathing is normal
- ☐ Usual cough and amount of mucus
- ☐ Able to do daily activities and exercise
- ☐ Sleep well and good appetite

☐ Take daily medication(s):

☐ For increased shortness of breath and cough, use rescue medicine:

prescribed

at plan

haled irritants

Three Zones

YELLOW ZONE

- ☐ Ongoing Shortness of breath, increased mucus amount for _____

☐ Continue GREEN ZONE medications

☐ Start prednisone:

☐ Start antibiotic:

☐ Use rescue inhaler **OR** nebulizer scheduled

☐ Continue GREEN ZONE medications

Notify telephone triage or primary care provider when starting Yellow Zone Medications

AND

If your symptoms do not improve within 48 hours

Telephone Triage:

1-888-598-7793

Primary Care Provider:

RED ZONE

- ☐ Rescue inhaler does not help
- ☐ Fever, chills, chest pain, or coughing up blood
- ☐ Severe shortness of breath
- ☐ Not able to talk, sleep, or do any activity because of trouble breathing

Seek urgent medical care

Call 911
Or have someone take you to the nearest Emergency Department

VA



U.S. Department
of Veterans Affairs
William S. Middleton

COPD ACTION PLAN

Date: _____

GREEN ZONE

Symptoms

- ☐ Breathing is normal
- ☐ Usual cough and amount of mucus
- ☐ Able to do daily activities and exercise
- ☐ Sleep well and good appetite

- ☐ Take daily medication(s):

- ☐ For increased shortness of breath and cough, use rescue medicine:

- ☐ Use Oxygen and/or CPAP as prescribed

- ☐ Continue regular exercise/diet plan

- ☐ Avoid cigarette smoke and inhaled irritants

YELLOW ZONE

- ☐ Ongoing Shortness of breath, cough, or increased mucus amount for 1-2 days

- ☐ **Start prednisone:**

- ☐ Use rescue inhaler **OR** nebulizer scheduled

- ☐ Continue GREEN ZONE medications

- ☐ Ongoing Shortness of breath, cough, or increased mucus amount for 1-2 days

AND

- ☐ **Change in mucus color to yellow or green**

- ☐ **Start prednisone:**

- ☐ **Start antibiotic:**

- ☐ Use rescue inhaler **OR** nebulizer scheduled

- ☐ Continue GREEN ZONE medications

Notify telephone triage or primary care provider when starting Yellow Zone Medications

AND

If your symptoms do not improve within 48 hours

Telephone Triage:

1-888-598-7793

Primary Care Provider:

RED ZONE

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Call 911
Or have someone take you to the nearest Emergency Department

VA



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Memorial Veterans Hospital

COPD ACTION PLAN

Date: _____

GREEN ZONE

- ☐ Breathing is normal
- ☐ Usual cough and amount of mucus
- ☐ Able to do daily activities and exercise
- ☐ Sleep well and good appetite

☐ Take daily

Actions

- ☐ For increased shortness of breath and cough, use rescue medicine:
- ☐ Use Oxygen and/or CPAP as prescribed
- ☐ Continue regular exercise/diet plan
- ☐ Avoid cigarette smoke and inhaled irritants

YELLOW ZONE

- ☐ Ongoing Shortness of breath, cough, or increased mucus amount for 1-2 days

- ☐ Ongoing Shortness of breath, cough, or increased mucus amount for 1-2 days

AND

- ☐ **Change in mucus color to yellow or green**

☐ **Start prednisone:**

- ☐ Use rescue inhaler **OR** nebulizer scheduled
- ☐ Continue GREEN ZONE medications

☐ **Start prednisone:**

☐ **Start antibiotic:**

- ☐ Use rescue inhaler **OR** nebulizer scheduled
- ☐ Continue GREEN ZONE medications

Notify telephone triage or primary care provider when starting Yellow Zone Medications

AND

If your symptoms do not improve within 48 hours

Telephone Triage:

1-888-598-7793

Primary Care Provider:

RED ZONE

- ☐ Rescue inhaler does not help
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VA



U.S. Department
of Veterans Affairs
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Memorial Veterans Hospital

COPD ACTION PLAN

Date: _____

GREEN ZONE

- ☐ Breathing is normal
- ☐ Usual cough and amount of mucus
- ☐ Able to do daily activities and exercise
- ☐ Sleep well

☐ Take daily medication(s):

☐ For increased shortness of breath and cough, use rescue medicine:

and/or CPAP as prescribed

ular exercise/diet plan

te s _____

nis _____

inhaler **OR** nebulizer scheduled

GREEN ZONE medications

**Action plan
reads left to
right**

YELLOW ZONE

- ☐ Ongoing Sh _____
increased m _____

- ☐ Ongoing Shortness of breath, cough, or increased mucus amount for 1-2 days

AND

- ☐ **Change in mucus color to yellow or green**

☐ **Start prednisone:**

☐ **Start antibiotic:**

☐ Use rescue inhaler **OR** nebulizer scheduled

☐ Continue GREEN ZONE medications

**Notify telephone
triage or primary care
provider when
starting Yellow Zone
Medications**

AND

**If your symptoms do
not improve within
48 hours**

Telephone Triage:

1-888-598-7793

Primary Care Provider:


RED ZONE

- ☐ Rescue inhaler does not help
- ☐ Fever, chills, chest pain, or coughing up blood
- ☐ Severe shortness of breath
- ☐ Not able to talk, sleep, or do any activity because of trouble breathing

**Seek urgent medical
care**

**Call 911
Or have someone take
you to the nearest
Emergency Department**

Green Zone Action Plan

| | | | |
|-------------------|--|---|---|
| GREEN ZONE | <input type="checkbox"/> Breathing is normal <input type="checkbox"/> Usual cough and amount of mucus <input type="checkbox"/> Able to do daily activities and exercise <input type="checkbox"/> Sleep well and good appetite |  | <input type="checkbox"/> Take daily medication(s): _____ _____ _____ <input type="checkbox"/> For increased shortness of breath and cough, use rescue medicine: _____ <input type="checkbox"/> Use Oxygen and/or CPAP as prescribed <input type="checkbox"/> Continue regular exercise/diet plan <input type="checkbox"/> Avoid cigarette smoke and inhaled irritants |
|-------------------|--|---|---|

Green Zone: “Normal” state of health

Patient Education Reminders and Tips:

- Ask veteran to describe their “normal” state of health
- Emphasize difference between daily maintenance vs rescue inhalers
- Review physical description of inhalers

Daily Maintenance Medications/ Long-term Controllers



Budesonide/Formoterol
(red)



Olodaterol
(yellow)



Tiotropium
(blue)



Olodaterol/Tiotropium
(green)

Rescue Medication/ Short-Acting Bronchodilators



Albuterol
(yellow)



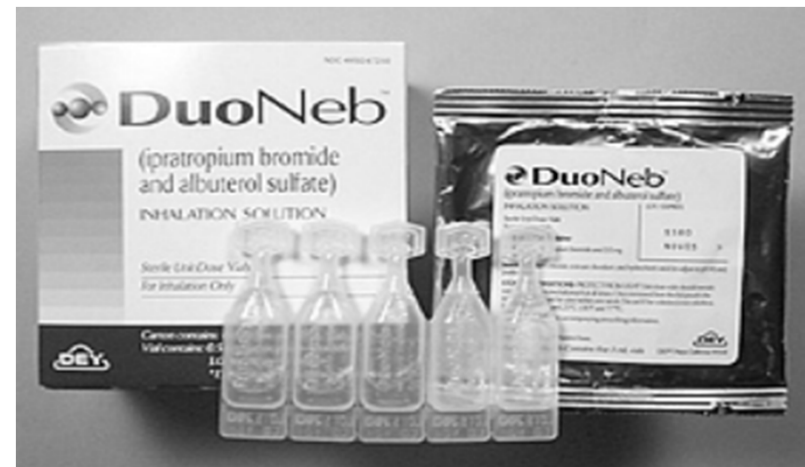
Ipratropium
(green)



Albuterol/Ipratropium
(orange)

Rescue Medication/ Short-Acting Bronchodilators

Nebulizers



Yellow Zone Action Plan

| | | | |
|--------------------|--|---|--|
| YELLOW ZONE | <input type="checkbox"/> Ongoing Shortness of breath, cough, or increased mucus amount for 1-2 days | <input type="checkbox"/> Start prednisone: _____ <input type="checkbox"/> Use rescue inhaler OR nebulizer scheduled <input type="checkbox"/> Continue GREEN ZONE medications | Notify telephone triage or primary care provider when starting Yellow Zone Medications AND If your symptoms do not improve within 48 hours Telephone Triage: <u>1-888-598-7793</u> Primary Care Provider: _____ |
| | <input type="checkbox"/> Ongoing Shortness of breath, cough, or increased mucus amount for 1-2 days AND <input type="checkbox"/> Change in mucus color to yellow or green | <input type="checkbox"/> Start prednisone: _____ <input type="checkbox"/> Start antibiotic: _____ <input type="checkbox"/> Use rescue inhaler OR nebulizer scheduled <input type="checkbox"/> Continue GREEN ZONE medications | |

- Yellow zone is divided in two categories, according to symptoms
 - Within either category, rescue inhaler use should be scheduled (taken on a consistent basis, as prescribed)
- Veterans should to call primary care or telephone triage:
 - For guidance if unsure of zone classification/therapy at *any time*
 - Prior to self-starting/changing prednisone or antibiotic
 - If symptoms do not improve/resolve within 48 hours

Yellow Zone Action Plan

(Moderate Symptoms)

| | | | |
|--------------------|--|--|---|
| YELLOW ZONE | <input type="checkbox"/> Ongoing Shortness of breath, cough, or increased mucus amount for 1-2 days | <input type="checkbox"/> Start prednisone: _____ <input type="checkbox"/> Use rescue inhaler OR nebulizer scheduled <input type="checkbox"/> Continue GREEN ZONE medications | Notify telephone triage or primary care provider when starting Yellow Zone Medications <u>AND</u> If your symptoms do not improve within 48 hours Telephone Triage: <u>1-888-598-7793</u> Primary Care Provider: _____ |
| | <input type="checkbox"/> Ongoing Shortness of breath, cough, or increased mucus amount for 1-2 days AND <input type="checkbox"/> Change in mucus color to yellow or green | <input type="checkbox"/> Start prednisone: _____ <input type="checkbox"/> Start antibiotic: _____ <input type="checkbox"/> Use rescue inhaler OR nebulizer scheduled <input type="checkbox"/> Continue GREEN ZONE medications | |

Yellow Zone: Moderate Action Plan

Prednisone Usual Dose:

- Prednisone 40mg daily for 5 days

Yellow Zone Action Plan

(Severe Symptoms)

| | | | |
|--------------------|--|---|---|
| YELLOW ZONE | <input type="checkbox"/> Ongoing Shortness of breath, cough, or increased mucus amount for 1-2 days | <input type="checkbox"/> Start prednisone: _____ <input type="checkbox"/> Use rescue inhaler OR nebulizer scheduled <input type="checkbox"/> Continue GREEN ZONE medications | Notify telephone triage or primary care provider when starting Yellow Zone Medications <u>AND</u> If your symptoms do not improve within 48 hours Telephone Triage: <u>1-888-598-7793</u> Primary Care Provider: _____ |
| | <input type="checkbox"/> Ongoing Shortness of breath, cough, or increased mucus amount for 1-2 days <u>AND</u> <input type="checkbox"/> Change in mucus color to yellow or green | <input type="checkbox"/> Start prednisone: _____ <input type="checkbox"/> Start antibiotic: _____ <input type="checkbox"/> Use rescue inhaler OR nebulizer scheduled <input type="checkbox"/> Continue GREEN ZONE medications | |

Yellow Zone: Severe Symptom Plan

Change in Mucus Color

Prednisone PLUS

Antibiotics:

- Augmentin 875/125mg twice daily for 5 days OR
- Doxycycline 100mg twice daily for 5 days OR
- Cefuroxime 500mg twice daily for 5 days

Yellow Zone Therapy Monitoring

Antibiotics:

- Possible side effects:
 - Augmentin/Cefuroxime – stomach upset/diarrhea (take with food); food also increases absorption
 - Doxycycline – space from calcium products and food unless stomach upset
- *Monitoring: stomach symptoms, patient adherence to administration recommendations, signs/symptoms of allergic reaction (facial swelling, new onset of difficulty breathing, rash)*

Prednisone:

- Side Effects: increased blood pressure, blood sugar, energy (take in AM), stomach upset (take with food)
- *Monitoring: blood pressure, blood sugar; should improve lung function, oxygenation, and recovery time*

Red Zone Action Plan



Red Zone: Urgent Medical Care/Call 911

- Shortness of breath is not specific to COPD exacerbations and could signify heart issues
- When in doubt, patient may call triage service or simply seek urgent medical care

Patient Case

JW is a 65 yo white male presenting to clinic for COPD education. JW was recently discharged from the hospital three weeks ago after experiencing a COPD exacerbation.

You provide JW with a paper copy of the COPD action plan, and begin explaining the document...



Patient Case

JW nods and indicates he understands the document.
But how can we be sure that he does?

Remember, we are providing JW with a comprehensive COPD Action Plan. The tools we provide will only be effective if the patient has a clear understanding.



Patient Instruction Considerations

- **Health literacy** and patient understanding
 - Utilize teach-back method and pause for questions

Ask patient: If you experienced the following scenario, what would you do?

- **You notice increased cough and shortness of breath for 24 hours. What do you do?**

Patient Instruction Considerations

- **You notice increased cough and shortness of breath for 24 hours. What do you do?**
 - Call primary care or telephone triage
 - Take rescue inhaler scheduled and continue maintenance medications
 - Start prednisone 40 mg daily x 5 days

Patient Instruction Considerations

- **Now you have started noticing a change in mucus color in addition to experiencing increased cough and shortness of breath for 24 hours. What do you do?**
 - Call primary care or telephone triage
 - Take rescue inhaler scheduled and continue maintenance medications
 - Start prednisone 40 mg daily x 5 days
 - Start antibiotic as prescribed

Objectives

Roadmap:

Patient Instruction
Considerations



COPD Action Plan



Veteran Scenario



CPRS
Documentation/Postings

- Discuss the role of the COPD Action Plan in veteran decision-making for COPD symptom development and exacerbations
- Review the COPD Action Plan, step by step, for use in accordance with the COPD CARE service
- Apply the COPD Action Plan to sample veteran scenarios

Vista CPRS in use by: Obermark, Molly R (vista.madison.med.va.gov)
File Edit View Tools Help

ZZCPRS, PATIENT (OUTPATIENT)
000-00-6075 Apr 30, 1939 (78)

Visit Not Selected
Current Provider Not Selected

No PACT/HBPC assigned at any VA location /

Flag

VistaWeb
Remote Data

Postings
CWAD

Active Problems
Infestation By Bed Bug (SCT 13557)
Back Pain (SCT 161891005)
Hereditary Fructose Intolerance (SCT 431856006)
Chronic Obstructive Lung Disease (SCT 431856006)
Degenerative Joint Disease Of Hand (SCT 431856006)
Attempted Suicide (ICD-9-CM E958.9)

Allergies / Adverse Reactions
Glove [Latex Glove]
Penicillin
Bacon
Aspirin Related Medications

Postings
Allergies
Crisis Note
Release Of Information
Research Study Patient
Infection Control
Controlled Substance Contract
Controlled Substance Contract

Active Medications
Infusion Clinic Medication
Denosumab 60mg/ML Inj, Syringe 1ml
Non-Va Acetaminophen/Diphenhydramine Tab

Clinical Reminders
PBM PharmD Pharmacotherapy Rem V9
A: Depression Screening
A: Fall History/Risk
A: Homelessness Screening
A: Pnevna 13 (PCV 13)
A: Primary Care Pressure Ulcer Risk
MH Tx Coordinator Info (Available)
P: BP > 139/89 (AGE 60-85)
P: Communication of Results
P: CVD/DM Annual LDL Needed
P: Diabetic Eye Exam ***MC**
P: DM A1C Goal Not Entered/Reviewed
P: Hepatitis C Testing
P: HIV Screening
P: Lipid Profile Screen
P: Medication Reconciliation
P: Wandering Safety Risk

Due Date
DUE NOW/
Sep 13, 17
Dec 11, 16
Jan 10, 14
DUE NOW/
Nov 01, 13
DUE NOW/
DUE NOW/
Dec 06, 07
Apr 28, 10
DUE NOW/
DUE NOW/
DUE NOW/
Sep 12, 04
DUE NOW/
DUE NOW/

Recent Lab Results
No Orders Found.

Vitals
T 98.4 F
P 68
R 14
BP 140/88
HT 68 in
WT 192 lb
PN 0
DOX 0

Appointments/Visits/Admissions
Oct 02, 2017 08:00 Address Verification-X
Sep 06, 2017 11:00 Mad Cardiology Pa Melone New
Sep 06, 2017 08:30 Mad Cardiology Pa Melone
Aug 01, 2017 12:00 Mad Cardiac Cath
Aug 01, 2017 10:00 Mad Ear Care Lpn
Jul 17, 2017 12:00 Mad Podiatry Rtc
Jul 11, 2017 08:00 Address Verification-X
Jul 06, 2017 10:13 Mad Htlb Cw Details Checked Out

Cover Sheet

Problems

Meds

Orders

Notes

Consults

Surgery

D/C Summ

Labs

Reports

Patient Postings

| Allergies | Severity | Signs / Symptoms |
|-----------------------------|----------|-------------------|
| Glove [Latex Glove] | | Hypotension |
| Penicillin | | Pruritus |
| Bacon | | Rash |
| Aspirin Related Medications | Severe | Rash; anaphylaxis |

Crisis Notes, Warning Notes, Directives
Crisis Note
Release Of Information
Research Study Patient
Infection Control
Controlled Substance Contract
Controlled Substance Contract
Controlled Substance Contract
Life-Sustaining Treatment

Sep 30, 09
Apr 28, 17
Apr 17, 13
Feb 09, 10
Mar 18, 09
Nov 13, 08
Nov 13, 08
Jul 19, 16

Close

Progress Note Properties

Progress Note Title: ACTION PLAN ASTHMA/COPD

ACTION PLAN ASTHMA/COPD
ACTIVATION <ADVANCE DIRECTIVE ACTIVATION BY PHYSICIAN>
ACTIVE <CLINICAL WARNING NO LONGER ACTIVE>
ACTIVE <CRISIS NO LONGER ACTIVE>
ACTIVE <INFECTION CONTROL NO LONGER ACTIVE>
ACTIVE <MRI CONTRAINDICATION NO LONGER ACTIVE>
ACTIVE <PATIENT RECORD FLAG CATEGORY II - ADVANCE DIF

Date/Time of Note: Aug 1, 2017@12:39 ...

Author: Obermark, Molly R - CLINICAL PHARMACIST F

Expected Cosigner:

OK
Cancel

Reminder Dialog Template: ACTION PLAN ASTHMA/COPD

☐ Asthma Action Plan:

☒ COPD Action Plan:

GREEN ZONE

TAKE THESE MEDICATIONS EVERYDAY WHEN YOUR BREATHING IS STABLE AND YOU ARE FEELING WELL

COPD Controller Medications:

- ☐ Tiotropium Respimat (Spiriva)
- ☐ Tiotropium/Olodaterol Respimat (Stiolto)
- ☐ Olodaterol (Striverdi) 2.5 mcg/actuation, 2 puffs once a day
- ☐ Salmeterol 1 puff twice a day
- ☐ Formoterol 1 puff twice a day
- ☐ Budesonide/Formoterol (Symbicort)
- ☐ Mometasone (Asmanex)
- ☐ Other:

TAKE THIS MEDICATION WHEN YOU HAVE INCREASED SHORTNESS OF BREATH AND/OR COUGH

COPD Rescue Medications:

- ☐ Albuterol
- ☐ Combivent Respimat 1 puff every 4-6 hours
- ☐ Albuterol nebulizer
- ☐ Duonebs nebulizer 1 treatment every 4-6 hours

Use oxygen and/or CPAP as prescribed

Continue regular exercise and diet plan

Avoid tobacco products and inhaled irritants

Reminder Dialog Template: ACTION PLAN ASTHMA/COPD

YELLOW ZONE:

Begin treatment plan for worsening COPD symptoms.

*** Call telephone triage (888)598-7793 or Primary Care Provider when starting Yellow Zone Medications and if your symptoms do not improve within 48 hours.

COPD Medications:

Continue GREEN ZONE medications

Take your RESCUE medication scheduled.

In addition:

For ongoing shortness of breath, cough or increased mucous for 1-2 days, take:

*

☐ Prednisone 20 mg tablets - take 2 tablets daily X 5 days (standard recommended dose)

☐ Prednisone - Other dose/schedule:

☐ No Prednisone

For ongoing shortness of breath, cough or increased mucous amount for 1-2 days AND change in mucous color to yellow or green, take:

*

☐ Prednisone 20 mg tablets - take 2 tablets daily X 5 days (standard recommended dose)

☐ Prednisone - Other dose/schedule:

☐ No Prednisone

AND Antibiotic:

☐ <-- Click to view antibiotic therapy guidelines

☐ Augmentin (Amoxicillin 875mg/Clavulanate 125mg)

☐ Doxycycline 100mg

☐ Cefuroxime 500 mg

Complete full course of Prednisone and Antibiotics, even if you start to feel better.

RED ZONE:

Continue GREEN AND YELLOW ZONE medications.

SEEK URGENT MEDICAL CARE OR CALL 911 if you have any of the following symptoms:

- Rescue medication does not help improve shortness of breath
- Severe shortness of breath, even at rest
- Not able to talk, sleep or do any activity because of trouble breathing
- Fever or chills
- Chest pain or coughing up blood

William S. Middleton VA Interprofessional COPD Service

COPD Action Plan

Molly Obermark, PharmD, PGY-1 Ambulatory Care Pharmacy Resident

Date Recorded: 8/03/2017

