Pharmacy Education (2024) 24(1) 730 - 738
https://doi.org/10.46542/pe.2024.241.730738

RESEARCH ARTICLE

Reliability of a modified single-point rubric for assessment of integrated pharmacotherapy cases

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Keywords
Assessment
Pharmacotherapy case
Pharmacy education
Rubric

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Abstract

Background: The Pharmacists' Patient Care Process (PPCP) offers a method to integrate pharmacotherapy cases between disciplines. However, establishing a consistent grading standard across multiple faculty and disciplines creates a challenge. The purpose of this study was to describe the reliability of a single-point rubric for assessing integrated cases among interdisciplinary graders. **Methods:** A single-point rubric was developed to provide students with formative and summative feedback on existing integrated cases requiring written PPCP notes. The rubric was calibrated retrospectively on a sample of deidentified cases from two integrated pharmacotherapy courses. Following calibration, 20 submissions were evaluated by an interdisciplinary team of faculty. The following year, four new evaluators graded 12 submissions to ensure continued reliability. **Results:** Fleiss' kappa was used to determine if there was an agreement between instructors' judgement on the final grade classification of the original 20 submissions. There was almost perfect agreement between the instructors' judgements, κ= .868. Each section of the PPCP and overall numerical score all showed significant agreement using Kendall's W. Results were similar the following year with four new graders. **Conclusion:** This study demonstrates the continued reliability of a modified single-point rubric to evaluate written cases involving multiple disciplines.

Introduction

In pharmacy curricula, the Pharmacists' Patient Care Process (PPCP) offers a method to integrate cases between disciplines such as pharmacology, pathophysiology, medicinal chemistry, and clinical sciences (Marshall & Nykamp, 2010; Joint Commission of Pharmacy Practitioners, 2014). Given the utilisation of the PPCP throughout the pharmacy curriculum, there is a need to ensure targeted feedback to student learners to afford progression within the specific domains of collect, assess, plan, implement, and follow-up/monitor. The PPCP process is intentionally utilised within high-stakes integrated case assignments throughout the curriculum at the study institution. This provides students with continuous exposure to the methodology while serving as a tool to reinforce content. Due to the multidisciplinary nature of these cases, establishing a consistent grading standard across multiple faculty creates a challenge. Not only are pharmacy faculty utilised in grading, but other individuals, including PGY1 or PGY2 residents, student pharmacists, and preceptors, may be utilised, further highlighting the need to reduce subjectivity that can be present secondary to diverse backgrounds and experiences.

A 2020 study by McKeiran and colleagues established several recommendations for standardising rubrics, including the use of pre-and post-rubric analysis to reduce interrater variability and increase consistency, simplification of the rubric to reduce subjectivity and clarifying intent of rubric elements, and acknowledgement that rubrics can serve varying purposes to target specific learning objectives in separate courses. Bray and colleagues (2013) further highlighted the need for rubrics to have clear, defensible cut points, consistency among raters, relevant content to correctly treat the patient, and clear standards of proficiency.

Previous studies have established strong interrater reliability through the use of analytic rubrics, but a consistent limitation persists with a need to reduce subjectivity (Peeters *et al*., 2010; Bray *et al*., 2013)

Blommel and Abate (2007) developed a rubric utilising a checklist approach and concluded that properly designed and tested rubrics can be useful for evaluating student performance on journal article presentations. Several revisions were required to reduce subjectivity and improve evaluator interpretation, with consistency in grading still being a limitation. Villa and colleagues (2020) evaluated an analytic rubric assessing clinical documentation for pharmacist problem-based learning. This rubric utilised nine content areas for documentation and four competency levels. Although the study found good interrater reliability across assignments and utilised qualitative and quantitative feedback, the authors highlighted several aspects of the rubric that showed only fair reliability. To enhance standardisation, better descriptions and percentages were added to increase precision and reduce subjective interpretation (Villa *et al.*, 2020). Barnett and colleagues (2022) also attempted to evaluate the interrater reliability of a universal evaluator rubric to assess student pharmacist communication skills. This analytic rubric contained categories for "*no*," "*inconsistent*," and "*yes*," and included descriptions to define appropriate responses in a given category. Evaluators from various backgrounds, including pharmacy school faculty, standardised patients, PGY1 residents, student pharmacists, and preceptors, were involved in the grading process. Despite good interrater reliability, agreement across all rater groups for specific rubric items varied widely and highlighted continued issues with subjectivity when evaluating student learners (Barnett *et al*., 2022).

Compared to analytical rubrics, which require defining multiple levels of performance for each component of an assignment, a single-point rubric only describes the area of proficiency (Fluckiger, 2010; Gonzalez, 2014). Using a single-point rubric, graders must only determine if a learner meets, exceeds, or falls short of the expected proficiency level. The single-point rubric also allows for additional feedback and modification for the scoring of students who exceed or fall short of the expected proficiency level (Gonzalez, 2014; Ripp, 2019; St. Jean *et al*., 2023). Chao and colleagues (2021) demonstrated the utility of single-point rubrics in interprofessional education by exploring the impact on supporting learning and teaching. The authors concluded the single-point rubric could help construct structured and potentially helpful feedback that students could utilise for future activities if consciously engaged. Several barriers were identified by this research including variations in the level of experience of facilitators and a lack of direct suggestions when providing feedback, as well as a need to ensure facilitators have the competence and skills to provide meaningful feedback (Chao *et al*., 2021).

Modified single-point rubrics allow for further delineation of areas for improvement and areas of excellence outside of written facilitator feedback (St. Jean *et al*., 2023). Further specifying these areas can potentially help reduce subjectivity and ensure meaningful feedback is provided to all learners. The utilisation of single-point rubrics and their reliability among multiple interdisciplinary graders in pharmacy curricula or healthcare education has not been studied. The purpose of this study was to describe the reliability of a newly developed single-point rubric for assessing integrated cases among interdisciplinary faculty graders.

Methods

The Doctor of Pharmacy programme at the Campbell University College of Pharmacy & Health Sciences underwent a curricular change in 2017 from a more traditional discipline, course-based programme to an integrated programme that progresses from the basic to clinical sciences during a single integrated pharmacotherapy course. The development of these courses requires the collaboration of faculty members from multiple disciplines to create an organised course that makes logical sense in terms of the flow of the discipline topics. For example, the Cardiovascular/Renal (CV/Renal) I and II Integrated Pharmacotherapy modules are taught in the second year of the programme and integrate concepts in anatomy and physiology, pharmacology, medicinal chemistry, biochemistry, and the clinical sciences. Due to the integrated nature of the course, assignments must also be designed that incorporate all of these disciplines and assess the students' knowledge of the various disciplines. There is a challenge to not only creating these assignments, but classes are large and grading these assignments can be a challenging task.

One assignment utilised in these modules was an extensive integrated case utilising a simulated electronic health record (EHR) patient that was provided to the students at the beginning of each 7-week course block. This assignment was designed to assess the students' ability to utilise basic and clinical sciences by developing a patient care plan utilising the PPCP. Students were given access to the patient in the EHR in week three of the 7-week block and were assigned groups of four students to work on the case. Within the students' group PPCP notes, they were

required to answer basic science questions (including pharmacology, medicinal chemistry, and pathophysiology) that related to the patient's symptoms, drug choices, and laboratory values. This submission was then due during the final week of the block. Cases focused on key disease states from the CV/Renal modules, including acute coronary syndromes, heart failure, and hypertension, but also included disease states from previous IP modules, including urinary tract infection and diabetes. For example, the case utilised in this study was a patient on day 3 of admission for a heart failure exacerbation. Students were responsible for transitioning the patient to appropriate guideline-directed medical therapy in addition to assessing the patient's hypertension, diabetes, and urinary tract infection.

For each block, eight graders were recruited from the faculty teaching within the course to grade 4-5 PPCP assignments each. In order to minimise inter-grader variability, a modified single-point rubric was developed (Figure 1). The rubric was utilised during the first rendition of the course. However, there was no calibration or validation before this first year. Both summative scores and feedback were provided to the students upon grading completion.

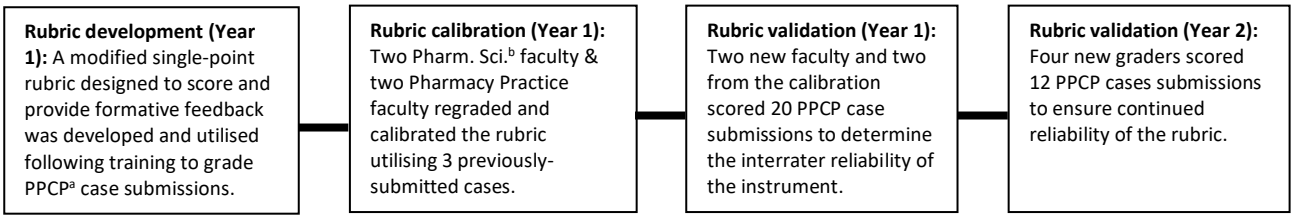
	Needs Improvement	Satisfactory (80%)	Outstanding	Grade
Collect Complete and concise summary of S and O data Accurate summary of S and O data	• Any incorrect information (-15) • < 80% of S/O checklist (-10) • Not concise; i.e. copies and pastes S/O from chart but info is correct (-5) • Missing (-all points for section) • Doesn't report EF (-5) Feedback:	Complete and concise summary of pertinent information for ≥ 80% of the patient problems – Must check 11-12/15 below: • CC including age, race, sex • HPI: edema, SOB, timeline • PMH • FH, SH • Home medications • Forgets PM meds/adherence • EF < 35% • BNP • Vitals • Pertinent Negatives: afebrile, WBC, PCT, CXR • I&O • Dry hacking cough • A1c 8.8, elevated glucose • Lipid panel • BMP/CMP	• 13+/15 S/O checklist (+10) • Additional pertinent S/O (+5) – may get extra 5 without accomplishing above • Concise and highlights pertinent positives and negatives (+5) Feedback:	Grade/100 x 5
Implement Education Transitions of care Preventative measures	• - 10 for each completely missed bullet in satisfactory	Must hit at least part of each bullet below • Clear and concise patient and caregiver education is given. • Counseling points are mentioned for each new medication. • 2/3 preventative measures are included (i.e. vaccines, smoking cessation, lifestyle modifications)	• Counseling points for ALL meds (+5) • Flu & Pneumo vaccine mentioned (+5) • Diet/Exercise (+5) • Smoking cessation(+5)	Grade/100 x 10

[a]Not pictured: Assess, Plan, and Follow-up sections. (See Appendix A for full rubric example)

Figure 1: Modified single-point rubric example

Prior to the second year of the course, the four faculty members who developed the rubric calibrated the instrument utilising 3 cases from the previous year. These four faculty consisted of two faculty from the Pharmaceutical Sciences department, a medical chemist and pharmacologist, and two from the Pharmacy Practice department. Following calibration, two of the calibration faculty and two new faculty graded 20 deidentified student cases using the rubric to test the interrater reliability of the instrument. Notably, the two new graders did not receive additional training on rubric utilisation beyond the introduction to the rubric the previous year. This process, minus calibration, was repeated the following year with four new graders on 12 deidentified cases (Figure 2). The number of cases decreased due to decreases in class

size. Of the four new graders, one was from the Pharmaceutical Sciences department, one was a second-year Internal Medicine Pharmacy resident, and two were from the Pharmacy Practice department. Only one had participated in grading the PPCP in the previous year. All scoring for instrument validation occurred retrospectively following course completion.



[a]PPCP – Pharmacist Patient Care Process; [b]Pharm. Sci.- Pharmaceutical Sciences

Figure 2: Process of single-point rubric evaluation

The primary objective of this study was to evaluate the interrater reliability of a modified single-point rubric for assessing integrated cases in the PPCP format utilising interdisciplinary faculty graders. The secondary objective was to evaluate interrater agreement within the individual components of PPCP submissions (Collect, Assess, Plan, Implement, and Follow-Up). Fleiss' Kappa was utilised to evaluate interrater reliability (IRR) of the single-point rubric on the final PPCP grade category (A, B, C, F). For the total numerical score and numerical score for each PPCP section, Kendall's W was used to measure the interrater agreement on a continuous scale. All statistical analyses were conducted in IBM SPSS, version 26 (IBM Corp. Armonk, NY, USA). This analysis was granted Exempt status by the Campbell University IRB.

Results

Twenty case submissions scored by four faculty graders, for a total of 80 scores, were completed in the first year of rubric validation. The interrater reliability of the tool demonstrated almost perfect agreement (K = 0.868) in the first year for agreement for overall performance in the consistency of grade category (Table I). Grades were categorised as 90-100% for A, 80-89.9% for B, 70-79.9% for C, and < 70% for F. Within grade categories, there was almost perfect agreement (K > 0.80) for A (0.940) and B (0.862), and fair agreement (K = 0.313) for C. No cases received a score of F in year one. Score breakdown by category was 37 A, 31 B, and 2 C, which also demonstrated higher agreement in categories with a larger sample. Results were similar in the second year, with almost perfect agreement overall (K = 0.891). However, no cases (N = 12) received a score of C or F by any of the four new graders (Table I). The grade breakdown for the 48 total scores in year two was 26 A and 22 B.

Table I: Primary endpoint–Interrater reliability on grade categorisation

Primary endpoint	Fleiss' Kappa[c]	95% CI, *p*-value
First-year overall (N=20)[a]	0.868	0.689-1.047, <0.001
Grade categories		
A (90-100%)	0.940	0.746-1.134, <0.001
B (80-89.9%)	0.862	0.668-1.056, <0.001
C (70-79.9%)	0.313	0.119-0.507, 0.002
F (<70%)	N/A[b]	N/A
Second-year overall (N=12)	0.891	0.422-1.655, <0.001
Grade categories		
A (90-100%)	0.911	0.726-1.355, <0.001
B (80-89.9%)	0.885	0.701-1.422, <0.001
C (70-79.9%)	N/A	N/A
F (<70%)	N/A	N/A

[a]Four graders were utilised each year. There were no failures in either year, and only 2 and 0 "C's" respectively per year; [b]N/A-not applicable; cFleiss' kappa (K) scoring: < 0 poor agreement, 0-0.20 slight agreement, 0.21-0.40 fair agreement, 0.41-0.60 moderate agreement, 0.61-0.80 substantial agreement, 0.81-1.0 almost perfect agreement

When evaluating the interrater agreement on the numerical score (percentage of points achieved), both the first and second years showed strong agreement on the overall score, W = 0.941 and 0.911, respectively. The score breakdown for each component of the PPCP rubric can be found in Table II. Each section demonstrated strong interrater agreement, with the "*Implement*" section having the lowest score in each

year, W = 0.776 and 0.810, respectively. Of note, in the first year, the overall percentage score varied by no more than 3.9% in a single case between evaluators, with a mean variation of 2.7%. This was similar in the second year, with a maximum variation of 4.5% and a mean variation of 3.0%.

Table II: Secondary endpoint–Interrater agreement on rubric scores

Year 1 PPCP[a] (N=20)[b]	Kendall's W[d]	Year 2 PPCP (N=12)[c]	Kendall's W
Overall	0.941	Overall	0.910
Collect	0.913	Collect	0.903
Assess	0.887	Assess	0.862
Plan	0.834	Plan	0.887
Implement	0.776	Implement	0.810
Follow-up	0.824	Follow-up	0.815

[a]PPCP – Pharmacists' Patient Care Process; [b]Four graders utilised including two Pharmaceutical Science faculty and two Pharmacy Practice faculty; [c]Four graders utilised including one Pharmaceutical Science faculty, one pharmacy practice resident, and two Pharmacy Practice faculty; [d]Kendall's W scale: 0 – No agreement, 0.1-0.3 weak agreement, 0.3-0.6 moderate agreement, 0.6-0.99 strong agreement, 1.0 perfect agreement.

Discussion

This is the first study to evaluate the use of a modified single-point rubric for scoring in addition to feedback in healthcare education, filling a much needed gap bridging formative feedback and summative evaluation. The single-point rubric was described as "*modified*" because the standard single-point rubric is utilised as a competency check with areas for feedback. However, this limited the ability to use the rubric for grading, so additional criteria were added to the tool. This still prevented evaluators from having to choose from a scale for each section like required in an analytical rubric, which had been utilised in the past and struggled to achieve consistent scores between disciplines.

When evaluating agreement between raters utilising the modified single-point rubric, the results were almost perfect, with significantly strong agreement on both letter grade scores and continuous percentages. This is especially notable because each year, there were different graders from multiple disciplines, including 6 (75%) graders who did not participate in the initial calibration exercise. The disciplines included in the grades were multifaceted, with 2 outpatient practitioners, 2 inpatient practitioners, a pharmacy resident, a pharmacologist, and two medical chemists.

This study also adhered to and supported the recommendations provided by McKeirnan and colleagues (2020) for improving interrater reliability in rubrics. A "*norming*", or calibration exercise was conducted both before and after grading. The rubric was simplified to reduce subjectivity, and the rubric elements were clarified prior to grading. While the rubric was not simplified to purely a checklist, it was most similar to the checklist-style rubric assessed by Bray and colleagues (2013). Utilising six domains and an 18-item checklist, later revised to 19 items, Bray and colleagues (2013) developed a rubric that included space for debrief notes and guidance while establishing criteria for completion. Similar to this study, there were high levels of grader agreement; however, unlike this study, a norming session was conducted. This potentially helps identify the intent of each rubric component, which further increases interrater reliability. The study by Bray and colleagues (2013) also noted the need for establishing a definition of proficiency, which the single-point rubric does.

The studies conducted by Villa (2020), Barnett (2022) and colleagues evaluated analytic rubrics, which required defining multiple competence levels for each item evaluated, creating the possibility for increased subjectivity among graders and more time commitment to developing the tool. In the study by Barnett and colleagues (2022), raters from multiple backgrounds were utilised similarly to this study. However, their overall level of agreement was lower at 0.73 (strong), with several items demonstrating low interrater agreement.

The use of single-point rubrics has been minimally highlighted in the literature as a tool to address the shortcomings of the commonly used analytic rubrics in healthcare education. Two interprofessional education studies have demonstrated the ability of the tool to improve formative feedback from evaluators and the improved student perceptions of this feedback (Chao *et al*., 2021; St. Jean *et al*., 2023). However, neither of these studies used the rubric to score an activity.

Limitations

There were limitations to this study. The most outstanding was the single-institution, single-course application of the tool. Although it was studied in two cohorts of students with different graders, the activity was the same for each year. An additional limitation is the lack of a norming session with all graders. Although interrater reliability was still strong in year 2, there is an opportunity for improvement by allowing all new graders to participate in a norming session prior to grading the cases. Finally, the results were limited by the available sample size and grade distribution. The

highest levels of agreement were with the highest scoring cases, and only one grade under 80% was scored in the study. This limits the case for high interrater reliability to scores of 80% and above and could impact both Kappa scores and Kendall's W.

There is a clear need for better tools to assess student performance while also decreasing the faculty grading burden. A modified single-point rubric, when applied properly using the principles recommended by McKeirnan and colleagues (2020), can help address these issues. These rubrics are now being utilised in multiple courses for different assignment types (i.e. presentations and OSCEs) along with experiential assignments. There are also opportunities for assessing the utilisation of single-point rubrics in peer and self-evaluation.

Conclusion

This study demonstrated the continued reliability of a modified single-point rubric to evaluate written cases involving multiple disciplines. Not only are these rubrics simple and feedback-oriented, but they have demonstrated consistent grading amongst multiple faculty members for an assignment that required critical thinking among students.

Conflict of interest

The authors declare no conflicts of interest or financial interests that the authors or members of their immediate families have in any product or service discussed in the manuscript, including grants (pending or received), employment, gifts, stock holdings or options, honoraria, consultancies, expert testimony, patents, and royalties.

Source of funding

The authors did not receive any funding.

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Appendix A: Modified single-point rubric for cardiovascular case PPCP submission

Group # _____	Needs improvement	Satisfactory (80%)	Outstanding	Grade
Collect Complete and concise summary of S and O data Accurate summary of S and O data ***ONLY COUNTS IF FOUND IN COLLECT SECTION***	• Any incorrect information (-15) • 11/15 (-10) • 9-10/15 (-15) • <9/15 (-30) • Not concise; i.e. copies and pastes S/O from chart but info is correct (-5) • Missing (-all points for section) • Doesn't report EF (-10)	Complete and concise summary of pertinent information for ≥ 80% of the patient problems – Must check 12-13/15 below: • CC including age, race, sex • HPI: edema, SOB, timeline • PMH • FH, SH (including smoking) • Lists home medications with doses: aspirin 81mg daily, Lisinopril 40mg daily, metoprolol tartrate 100mg BID, furosemide 20mg daily, atorvastatin 20mg QHS, and metformin 1000mg BID • Discusses adherence/change in diet • LVEF 34.2% • BNP 1050 pg/mL • Vitals (BP, HR, O2 sat minimum) • I&O • Listed the PCN allergy AND reaction (rash) • Lipid panel • BMP/CMP (minimally include SCr, K, and glucose) • Reports urinalysis AND urine culture • A1c 9.8%	• 14/15 S/O checklist (+12) • 15/15 S/O (+20)	Grade/100 x 5
Assess Problem identification Current therapy Evidence/Best Practice Intervention Needed *answer to prompt question COUNTS IF FOUND IN ASSESS OR ANY SECTION AFTER	• -15 for each missing problem • -5 if guidelines/primary lit for only 1 problem, -10 if no guidelines/primary lit • -1.5 for each missing bullet of assessment < 19 • -10 for each incorrect/missing prompt answer below 6 (i.e if they get 4/7 questions its -20) (please search all sections for answers) • Increases lisinopril to 80mg daily or adds ARB (-15) • Leaves on amlodipine (-15) • Adds ivabradine or digoxin – resting HR < 70 (-10) • Adds BiDil – not AA, can tolerate ACE/ARB (-10) • Adds HCTZ or other agent (hyral, clonidine, etc) for BP control (-5) • Starts SGLT2 inhibitor (-10) • Starts/continues ciprofloxacin or nitrofurantoin (-10)	All problems identified including the primary problem • HFrEF (can combo with HTN) • HTN • Type 2 Diabetes • UTI References guidelines or appropriate primary lit for 3/4 problems Correctly answers 6/7 prompt questions (*) Checks 19-20/24 Bullets Below HFrEF/HTN • Assess sx & EF*, mechanism for heavy breathing* (NOTE: 2 stars) • Current tx reported: amlodipine, metoprolol tartrate, ASA 81, atorvastatin, furosemide 40 IV BID, metolazone, Lisinopril • Needs additional BP control – states BP above goal • Discuss why switching ACE to Entresto and/or adding spironolactone* • Needs evidence-based beta-blocker (must change from metoprolol tartrate) • Identifies b-blocker dose is maxed out. • Identifies agents with mortality benefit (ACE or Entresto, B-blocker, +/- spironolactone)* • Diuretic regimen appropriate based on MOAs (may d/c metolazone)* • Change diuretic to appropriate PO dose – furosemide 20 -40 mg daily to BID ok (or equivalent loop) • Loop morbidity data or mentions DOSE trial • Identifies amlodipine is inappropriate* DM/ASCVD risk • Identifies uncontrolled A1c (9.8%) and blood glucose (most recent 220) • Continues metformin and adds a GLP-1 RA +/- basal insulin for CV benefit • Provides NNT for GLP1 RA* • Calculates ASCVD risk (~55%)	• Identifies all problems with main problem (HFrEF) prioritized (+2) • Includes EBM/guideline recommendations for all problems (+5) • Correct answers to all 6 prompt questions (+5) • 18-19 Bullets (+3) OR • 21-22/24 Bullets (+10) • 23/24 Bullets (+15) • 24/24 Bullets (+20) • Bonus: Identifies metolazone inappropriately ordered as IV (+5) • Bonus: Discontinues aspirin for primary prevention (+5)	Grade/100 x 15

		• Can leave statin therapy alone (newest primary prevention AHA guidelines lump DM regardless of risk score into mod intensity) or increase to high-intensity based on statin benefit group (rosuvastatin 20-40mg or atorva 40-80mg). Must have rationale either way.
		• Recommends 50% lowering of LDL and/or goal LDL < 70
		UTI
		• Identifies positive UA and urine culture with Klebsiella
		• Discusses transitioning ceftriaxone to oral antibiotic
		• Incorporates PCN allergy into decision
		• Incorporates prolonged QTc into decision since provider recommends Cipro
		Transitions to appropriate antibiotic (3 bullets – see below)
		  • Correct drug (oral cephalosporin or Bactrim)
		  • Correct dose for selected agent
		  • Correct duration – will accept 5-10 days of total antibiotic therapy – must account for 3 days of ceftriaxone		

<u>Plan</u> Treatment goals Specific Plan	• 12 bullets (-6) • 11 bullets (-13) • 10 bullets (-20) • < 10 bullets (-All points for section) • Misses 36-hour washout for Entresto (-15) • Incorrect recommendations beyond those listed on rubric (-10 each)	Complete 13/16 Bullets below HFrEF/HTN • Oral loop diuretic at discharge: furosemide 20 - 40 mg daily to BID ok (or equivalent loop) • Begin ENTRESTO 49/51mg BID (must get dose right) • 36-hour washout with Entresto when switching from lisinopril • Start Spironolactone to 25mg daily or 12.5mg daily (ok if they don't start it, but justify why not, or if they don't start it but do Entresto and change metoprolol to Coreg 25mg BID). • Discontinues amlodipine • Change to evidence-based beta-blocker (carvedilol 12.5-25mg BID, metop succ 200mg daily, or bisoprolol) • Mentions current B-Blocker dose is maxed out. • Mentions new HF meds should work for BP • Does NOT start addition BP meds outside those in HF DM2 • Transitions patient back to metformin • Adds GLP1 RA for CV benefit • Continues statin at 20mg or increases to high intensity UTI • Transitions patient to oral antibiotic • Correct Drug based on C&S and PCN allergy (oral cephalosporin or Bactrim) • Correct dose of chosen agent • Correct total duration of therapy (5-10 days ok)	14 (+7) 15 (+13) 16 (+20) Bonus points: Changes BBlocker to Carvedilol 25mg BID for improved BP control (+5)	Grade/100 x 15
<u>Implement</u> Education Transitions of care	• - 15 for each completely missed bullet in satisfactory	Must hit at least part of each bullet below • Daily weights for HF • Counseling points are mentioned for each new medication.	• Counseling points for ALL meds (+5) • Flu, Pneumo, and COVID	Grade/100 x 7.5

Preventative measures		• 2/3 preventative measures are mentioned (i.e. vaccines, smoking cessation, lifestyle modifications)	vaccine mentioned (+5) • Diet/Exercise/smoking cessation plan provided (+5) • Counsels patient on need to complete antibiotic therapy (+5)	
<u>Follow Up: Monitor and Evaluate</u> Patient's therapeutic goals	8 (-10) 7 bullets (-15) < 7 bullets (- all points for section)	9/12 HF/HTN • Mentions preventing future exacerbations • Discusses compliance somewhere in note • Mentions up-titrating Entresto dose (2-4 weeks) • Appropriate Follow-up time (1-2 weeks best, up to 4 weeks reasonable) • Contains treatment goals for HFrEF and HTN (including BP goal < 130/80) • Monitors BP • Evaluates daily weight/volume status DM/CV Risk Reduction • Sets/evaluates blood glucose goals • Sets/evaluates A1c goal • Follow-up lipid levels in 4-8 weeks (any reasonable time <u>≥</u> 4 weeks ok) if changes are made to statin therapy UTI • Complete antibiotic therapy • Does not do follow up UA or urine Cx	10 (+7) 11 (+15) 12 (+20)	Grade/100 x 7.5
			Total	_____ / 50 Points Possible Percentage: ____ x 12.5 Final Score: ____/12.5

Comments: