

Hypertension as a Chief Complaint in the Emergency Department

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Hypertension as a Chief Complaint in the Emergency Department

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Abstract

Introduction: Emergency Department physicians have long been aware of patients who present with asymptomatic hypertension. We have further noticed a subset of these patients who present to the ED specifically because the patient measured a blood pressure, found it to be elevated, and came to the ED despite not having any serious symptoms. These patients may have other minor symptoms, but none that would have prompted the patient to seek medical attention. The purpose of our study was to characterize a demographic of patients presenting to the ED with hypertension as a chief complaint and to identify the percent of these patients with a serious final diagnosis.

Methods: This was a retrospective chart review. ED charts from 2008 with a chief complaint of high blood pressure or hypertension in the physician or nursing note were included. Age, gender, triage blood pressure, any associated symptoms, treatment, disposition, final diagnosis, and return visits were noted. The number of serious diagnoses was then determined as defined prior to initiating the study.

Results: 316 charts were reviewed after being electronically selected for chief complaint of "high blood pressure" or "hypertension." Of these, 91 did not meet inclusion criteria. 73 charts were excluded, primarily because of another serious symptom as part of the chief complaint. 3 charts were excluded because they were duplicate charts. This left 149 charts for analysis in the study group. Of these patients, 4 (2.6%) had a serious final diagnosis (1 kidney failure, 3 congestive heart failure) as defined by the pretest definitions. Other findings included 121 (81.2%) patients having a known diagnosis of hypertension prior to arrival in the ED. Lastly, without a widely accepted standard for diagnostic testing of these patients, we found wide variety in the tests ordered by ED physicians. 13 (8.7%) patients had only an EKG performed. 4 (2.6%) patients had only a urine dip ordered while 8 (5.3%) patients had both an EKG and urine dip. In addition to these tests, 22 (14.7%) patients underwent head CT and 44 (29.5%) patients underwent chest x-ray. 16 (9.3%) patients had no diagnostic testing beyond blood pressure measurement.

Conclusion: In patients presenting to the emergency department with a chief complaint of hypertension or high blood pressure and no serious associated symptoms, the risk of serious outcome is low. While 133/149 (89.2%) patients underwent some form of diagnostic testing, only 4 (2.6%) patients had a serious final diagnosis.

Study Inclusion Criteria

1. Patient presenting to a Lehigh Valley Hospital ED in 2008 with chief complaint of hypertension or high blood pressure
2. 18 years of age or older

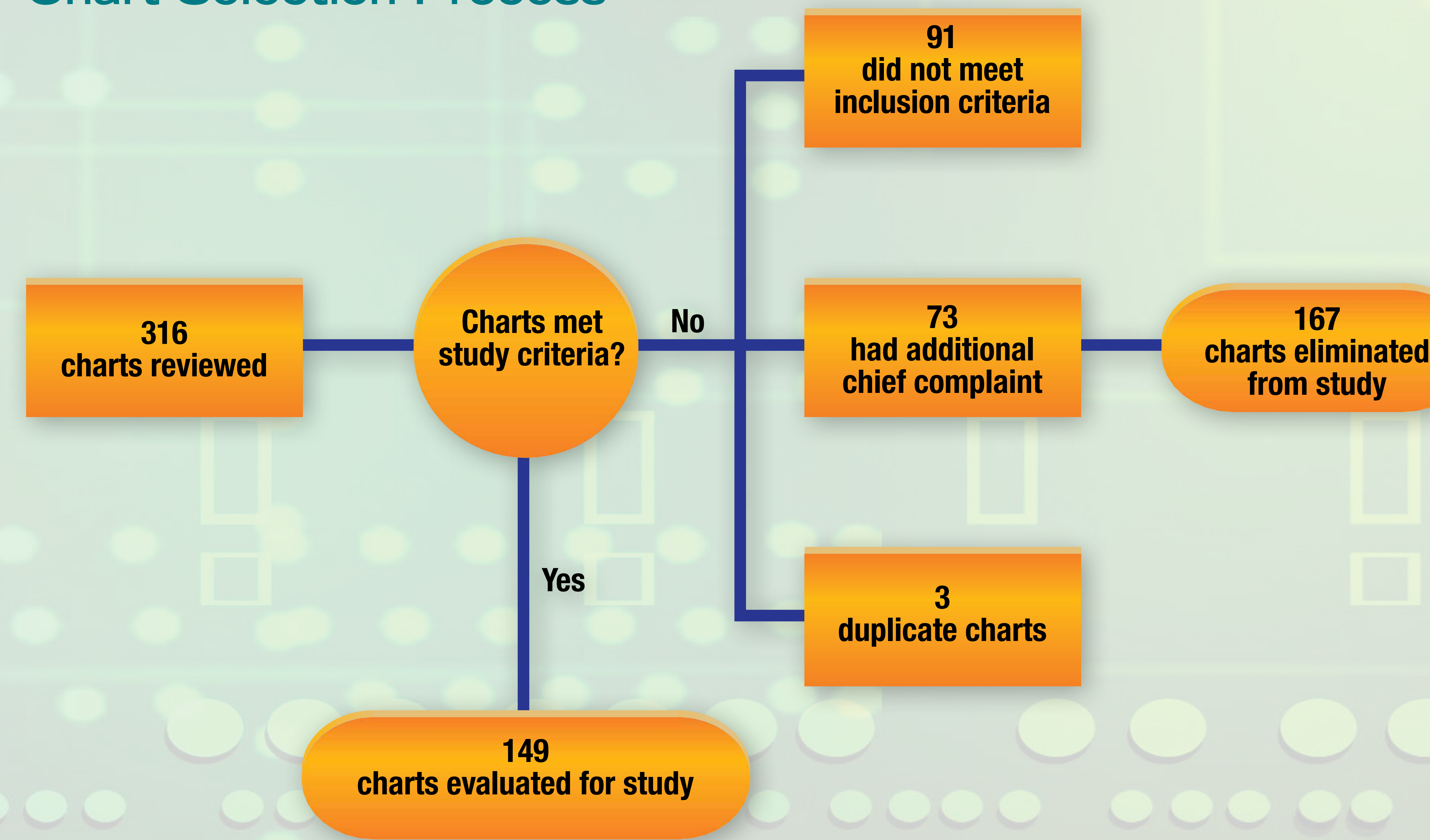
Study Exclusion Criteria

1. Another serious symptom as part of chief complaint (specifically chest pain, shortness of breath, abdominal pain, confusion, vomiting, epistaxis, or neurologic deficit)
2. Request for medication refill found in nursing or physician note
3. Pregnancy

Patient Demographics

Age (years)	Range	19-94	
	Mean	59.8	
	Median	61	
Gender	Male	60	
	Female	89	
Initial BP	Within normal limits		5
	Systolic BP	Range	128-260
		Mean	180.8
		Median	178
	Diastolic BP	Range	60-148
		Mean	98.2
Median		98	
Known Hypertension History	Yes	121	
	No	28	
Disposition Status	Admitted	26	
	Discharged or Eloped	123	

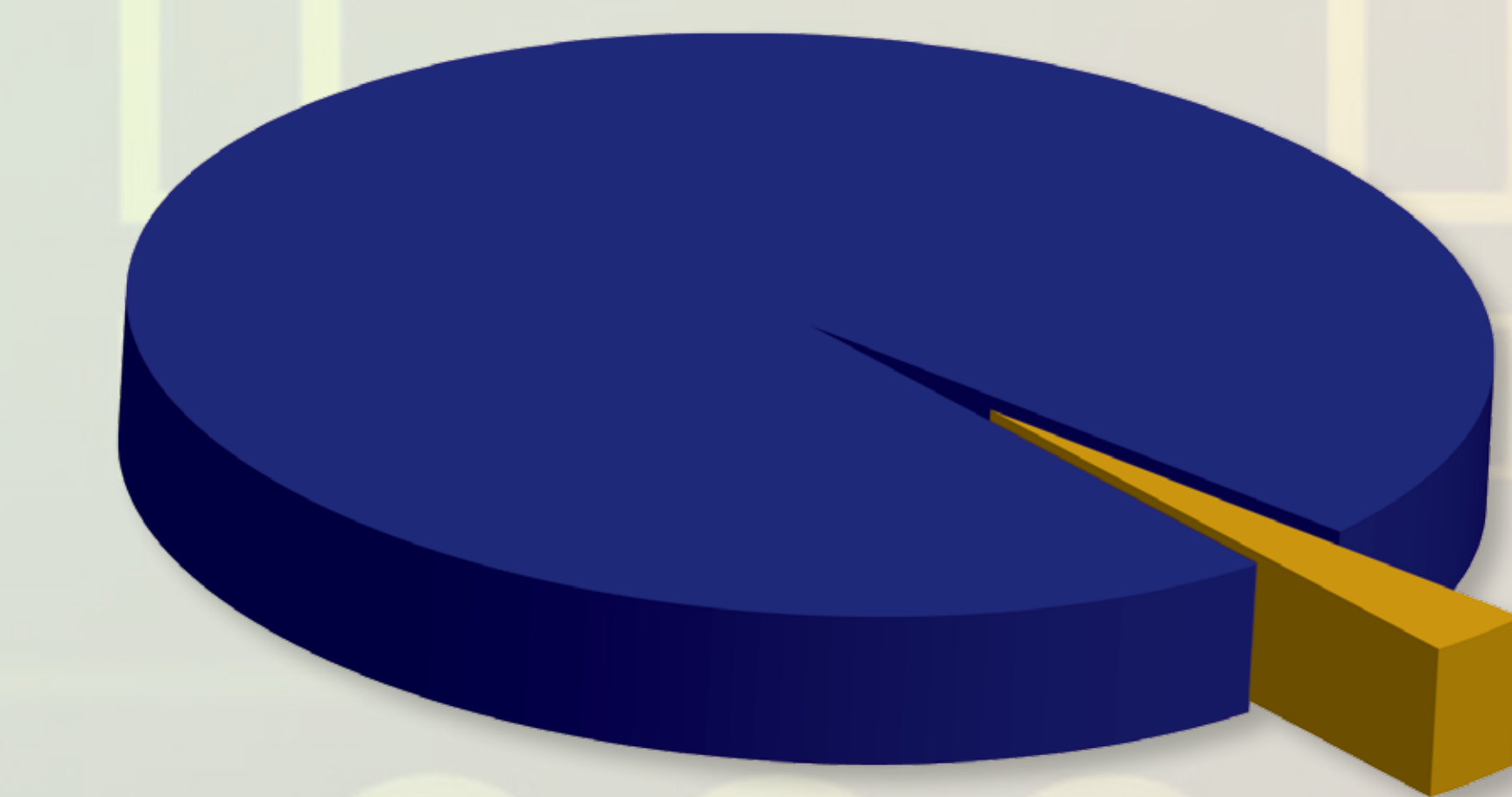
Chart Selection Process



Final Diagnosis Severity

Percentage of patients with serious final diagnosis

4 patients had a serious final diagnosis, 3 CHF cases and 1 kidney failure case.



- serious final diagnosis: 2.6% (4 patients)
- non-serious final diagnosis: 97.4% (145 patients)