

# Characteristics of Ambulatory Cardiovascular Patients in India: Findings from the First 18,000+ Patient Encounters in the PINNACLE India Outpatient Registry



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## Background

In India, patients usually are responsible for medical records. They often carry their records to ambulatory clinic visits. Little is known about the characteristics of cardiovascular (CV) patients visiting Indian hospital outpatient departments (OPDs), as this information is not collected or analyzed in a standardized fashion.

## Methods

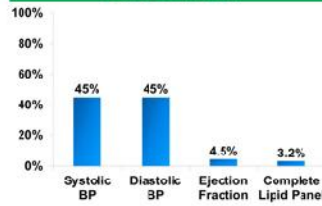
We used paper scanners along with an electronic data collection tool to systematically collect CV patient records in hospital OPDs. Standardized visit definitions were used for all elements, including demographics, vital signs, and lab values. We normalized and analyzed the data collected to produce totals, means, medians, and standard deviations for all element values.

## Results

We collected 13,804 CV patient encounters in the OPDs of two tertiary facilities in Maharashtra state from February 2012 to October 2012. Of 18,322 records with gender recorded, 12,366 were male (66.5%). Only 22% of records were for patients over age 65. Mean age was 57, the same mean age for males. Mean age for females was 54.

Systolic blood pressure (BP) was documented in 8,481 (45%) of patient visits. Diastolic BP was documented in 8,477 (45%) patient visits. Mean systolic BP was 130 with a standard deviation of  $\pm 18$ . Mean diastolic BP was  $81 \pm 9$ . Most BPs were high, with 6,651 (78%) greater than 120. Hypertension diagnoses could be applied to 2,596 (30%) of the encounters with a systolic BP over 140 documented.

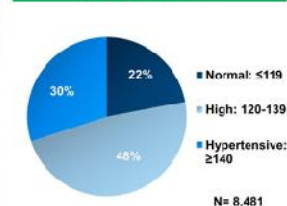
## Percent Documentation



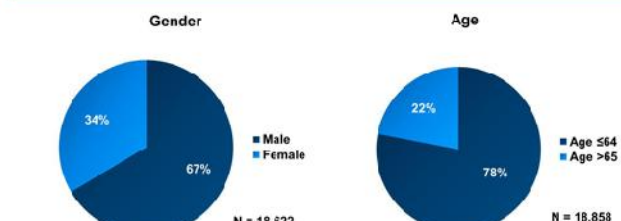
## Table 1

	Mean	Standard Deviation
Systolic BP	130 mmHg	$\pm 18$
Diastolic BP	81 mmHg	$\pm 9$
EF	56%	$\pm 11$
LDL	101 mg/dL	$\pm 35$
Age (Overall)	57 years	
Males	57 years	
Females	54 years	

## Blood Pressure Control



## PINNACLE India Patient Demographics



## Results cont.

Ejection fraction (EF) was present in 857 patient encounter records (4.5%). Most EFs (70%) fell within the normal range of  $\geq 50\%$ . Mean ejection fraction was  $56\% \pm 11$ . For EFs outside normal range, 74 were mildly reduced (EF 40%-49%), 57 moderately reduced (26%-29%) and 22 severely reduced ( $\leq 20\%$ ).

Complete lipid panel, consisting of values for total cholesterol, HDL, LDL, and triglycerides was present in 584 patient records (3.2%). LDL values were present in 501 encounter records, with mean LDL of  $101 \text{ mg/dL} \pm 35$ . LDL values were at the upper bound of the optimal range, with 288 LDL values over 100 mg/dL.

## Conclusion

Indian ambulatory CV patients appear to be younger and more heavily male than outpatient CV populations in the US. Opportunity remains for increased documentation, allowing for performance measure generation.

Bristol-Myers Squibb and Pfizer Inc. are founding sponsors of the PINNACLE Registry<sup>SM</sup>.