



## Operational Definition

### MEASUREMENT: 3<sup>rd</sup> Next Available Appointment

#### I. Description and Rationale

*This measure answers the question:*

*How long do patients have to wait for an appointment to a specialty outpatient clinic?*

It is measured as the length of time in calendar days between the day a patient makes a call for an appointment with a physician and the third available appointment. This measure is tracked for new patients because a primary concern of the CCHMC patient advisory group is our ability to get patients into the system for their first appointment in a timely manner. It measures the effect of changes in the overall scheduling system and not our responsiveness to a single patient who needs to be seen quickly. For this reason, the 3<sup>rd</sup> Next Available is preferable to the first or second. It has been shown in other settings to be a better reflection of system availability because often first and second available appointments are due to cancellations, “working patients into the schedule”, or other events.

#### II. Population Definition

Data is for the *new* visit type that represents the top percentage of new visit volume. For Outpatient clinics that are in the call center, each division’s monthly *Call Center Summary* report (“Dashboard” Sheet) identifies which visit type is reported to the Management Summary.

As of April, 2005 (unless otherwise noted), the following clinics and the visit type that is reported are listed below:

Outpatient Division	Visit Type	% of Total Visit Volume (December 2004 unless otherwise noted)
Allergy	New Visit	44%
Audiology	~7/2008 Audiology routine hearing test 9 mo-5yrs	(Jan 11) 185 Visits a Month
Cardiology	NV Murmur Over 2 Years Old	15%
Behavioral Medicine & Clinical Psychology	<u>EPIC Sept 2009</u> VT 9047 BMCP NV Therapy	38%
Cardiothoracic Surgery	New Visit	50%
Dermatology	New Visit	(JAN 11) 87%
Developmental & Behavioral Pediatrics	DDBP NV General 3YO to under 6YO	7% (November 2006)
Endocrinology	Endocrine New Visit	16%
Gastroenterology	New Visits	31%
Hematology/Oncology	~7/2008 HO Hematology Visit New	(JAN 11) 87%

<b>Outpatient Division</b>	<b>Visit Type</b>	<b>% of Total Visit Volume</b> (December 2004)
Hopple Street Clinic	New Patient Newborn	6%
Human Genetics	New Visit	Not Available
Infectious Diseases	ID New Visit	28%
Neonatology	(Began 1/2011) New Visit	Not Available
Nephrology	New Visits	23%
Neurology	New Visit General	11%
Neurosurgery	New Visit Attendings	15%
Ophthalmology	New Visit Dilated MD and New Visit Dilated OD	30% (March 2006)
Orthopaedics	New Visit  <u>Added Nov 2006</u> New Visit Spine, New Visit Fracture, and New Visit Sports Medicine  (weighted average of all visit types by volume)	18% of All Visits 49% of New Visits (July 06- Nov 06)
OT/PT	OT New Visit*	Not Available
Otolaryngology	New Visit	Not Available
Pain Management	Began 1/2010 New Visit	(JAN 2011) 100% (8% of all Visits)
Pediatric Primary Care	New Patient Newborn	5%
Pediatric Rehabilitation	New Visits	14%
Pediatric Surgery	SUR NV	(JAN 2011) 55%
Plastic Surgery	New Visit	Not Available
Psychiatry	Began 1/2007 PSY New Visit MD at Base	11% (23% excluding Social Worker)
Pulmonary	New Visit General	18%
Rheumatology	New Visit Attending Only	3%
Speech Therapy	New Visit	Not Available
Sports Medicine	New Patient	33%
Teen Health Center	New Visit MD  <u>Added Nov 2006</u> New Visit NP or MD, New Visit GYN 12 Yrs+  (weighted average of all visit types by volume)  <u>Modified July 2009</u> New Visit GYN 12 Yrs New Visit Consult  <u>Modified March 2011</u> New Visit Consult	13% (July 06- Nov 06)        72% of SPECIALITY CONSULT NEW VISITS   100% of all SPECIALITY new visit types (only 5% of all THC NEW VISITS)
Urology	New Visit-Surgical	22%

### III. Data Source(s)

For divisions using Cadence, the system used to schedule appointments, the data are collected from the call center. Once a week, the call center staff manually goes into the system and attempts to make a “fake” patient appointment for certain appointment type. For each visit type, they “spin” the scanner for the next available appointment and, once that is found, the Call Center agent “spins” 2 more times to identify the 3<sup>rd</sup> next available appointment and then records the date for each of the locations as well as the date the agent is spinning.

For clinics scheduling through other systems, the data are collected out of that system weekly in a similar way.

### IV. Sampling and Data Collection Plan

One data point is collected, once each week on Tuesdays for selected visit types for each outpatient clinic. The same day of week is used as reference point.

The call center is collecting data for call center and non-call center clinics are entering it on the monthly Call Center Executive Summary Report.

### V. Calculation

#### Overall Outpatient

The overall outpatient 3<sup>rd</sup> Next Available Appointment measure is a weighted average of all Outpatient divisions. It is reported as a mean +/- standard deviation in order to see the variation among divisions.

$$A = \frac{\sum w_i x_i}{\sum w_i}, \text{ where}$$

$A$  = average days until 3<sup>rd</sup> next available appointment weighted by patient volume at each division

$w_i$  = total visit volume for division  $i$

$x_i$  = number of days until 3<sup>rd</sup> Next Available Appointment for division  $i$

#### Divisional

Each division 3<sup>rd</sup> Next Available Appointment measure is a standard average for that division.

$$A_i = \frac{\sum x_{ij}}{n_i}, \text{ where}$$

$A_i$  = average days until 3<sup>rd</sup> next available appointment division  $i$  during month  $j$

$n$  = number of months sampled for division  $i$ , typically 3

### VI. Analysis Plan and Frequency of Reporting

Data is collected weekly. A monthly average is reported on the Call Center Summary report (“Dashboard” sheet). Monthly charts are available for teams going through Advanced Access. Quarterly averages are reported quarterly on the Outpatient CSI dashboard at the overall outpatient level and for each division.

## VII. Reporting Venues

- Results are reported on the Advanced Access Strategic Improvement monthly report for teams going through Advanced Access.
- Results are reported quarterly on the Outpatient CSI Dashboard & the Hospital System Level Measures report card.

## VIII. Limitations

### VIII. Experts/Resources

- Murray, Mark. Document: Measurement Package – Access and Office Efficiency – Primary and Specialty Care. Mark Murray & Associates.

## VII. Revision History

Version	Primary Author(s)	Description of Version	Date Completed
Final	Anneken		5/2/2006
Revision 1	Anneken	Updated volume data for DDBP (added to the call center)  As of November, 2006, Orthopaedics and Teen Health Center are reporting a weighted average of their visit types	1/7/2007
Revision 2	Anneken	As of FY2010, Teen Health is reporting for Consult Visits only as that is their subspecialty component  Added details about BMCP, post EPIC go live	10/14/2009
Revision 3	Anneken	Gynecology is a surgical division. The GYN spin taken out of Teen Health's measure.	3/3/2011
Revision 4	Anneken	Visit type table update to reflect current reality where appropriate	3/23/2011