

## EXHIBIT 3.2 Most Frequent All-listed Procedures by Age

Number of Discharges, Percent Distribution, and Growth for the Most Frequent All-listed Inpatient Hospital Procedures by Age Group, 1997 and 2007

AGE GROUP AND ALL-LISTED CCS PROCEDURES	NUMBER OF DISCHARGES IN THOUSANDS		PERCENT OF AGE-SPECIFIC TOTAL DISCHARGES		CUMULATIVE GROWTH
	1997	2007	1997	2007	1997-2007
All ages, total discharges <sup>†</sup>	34,679	39,542			14%
<b>&lt; 1 year, total discharges</b>	<b>4,426</b>	<b>5,125</b>	<b>100.0%</b>	<b>100.0%</b>	<b>16</b>
Prophylactic vaccinations and inoculations	549	1,461	12.4	28.5	166
Circumcision	1,159	1,299‡	26.2	25.3	12
Ophthalmologic and otologic diagnosis and treatment (vision and hearing diagnosis and treatment)	*	532	*	10.4	*
Respiratory intubation and mechanical ventilation	163	202	3.7	3.9	24
Enteral and parenteral nutrition	39	124	0.9	2.4	219
<b>1-17 years, total discharges</b>	<b>1,821</b>	<b>1,658‡</b>	<b>100.0</b>	<b>100.0</b>	<b>-9</b>
Appendectomy (removal of appendix)	74	82‡	4.1	4.9	10
Repair of obstetric laceration	58	60‡	3.2	3.6	3
Blood transfusion	26	45	1.4	2.7	72
Cancer chemotherapy	43	44‡	2.4	2.7	3
Artificial rupture of membranes to assist delivery	40	44‡	2.2	2.7	10
<b>18-44 years, total discharges</b>	<b>9,444</b>	<b>10,354</b>	<b>100.0</b>	<b>100.0</b>	<b>10</b>
Cesarean section (C-section)	773	1,443	8.2	13.9	87
Repair of obstetric laceration	1,079	1,386	11.4	13.4	28
Fetal monitoring	952	1,211‡	10.1	11.7	27
Artificial rupture of membranes to assist delivery	706	1,123	7.5	10.9	59
Episiotomy (surgical incision into the perineum and vagina to prevent traumatic tearing during delivery)	813	358	8.6	3.5	-56

(continued on next page)

**Number of Discharges, Percent Distribution, and Growth for the Most Frequent All-listed Inpatient Hospital Procedures by Age Group, 1997 and 2007--continued**

AGE GROUP AND ALL-LISTED CCS PROCEDURES	NUMBER OF DISCHARGES IN THOUSANDS		PERCENT OF AGE-SPECIFIC TOTAL DISCHARGES		CUMULATIVE GROWTH
	1997	2007	1997	2007	1997-2007
<b>45-64 years, total discharges</b>	<b>6,496</b>	<b>9,135</b>	<b>100.0%</b>	<b>100.0%</b>	<b>41%</b>
Blood transfusion	247	708	3.8	7.8	187
Diagnostic cardiac catheterization, coronary arteriography (diagnostic procedure to explore the functioning of the heart)	578	641†	8.9	7.0	11
Respiratory intubation and mechanical ventilation	186	370	2.9	4.1	99
Upper gastrointestinal endoscopy (procedure to view and biopsy the esophagus, stomach and first portion of intestine through a lighted tube)	275	369	4.2	4.0	34
PTCA (percutaneous transluminal coronary angioplasty, procedure involving use of a balloon-tipped catheter to enlarge a narrowed artery)	247	320	3.8	3.5	30
<b>65-84 years, total discharges</b>	<b>10,121</b>	<b>10,277‡</b>	<b>100.0</b>	<b>100.0</b>	<b>2</b>
Blood transfusion	514	1,166	5.1	11.3	127
Diagnostic cardiac catheterization, coronary arteriography (diagnostic procedure to explore the functioning of the heart)	738	656†	7.3	6.4	-11
Upper gastrointestinal endoscopy (procedure to view and biopsy the esophagus, stomach and first portion of intestine through a lighted tube)	530	491	5.2	4.8	-7
Respiratory intubation and mechanical ventilation	366	479	3.6	4.7	31
PTCA (percutaneous transluminal coronary angioplasty, procedure involving use of a balloon-tipped catheter to enlarge a narrowed artery)	286	332‡	2.8	3.2	16
<b>85+ years, total discharges</b>	<b>2,362</b>	<b>2,953</b>	<b>100.0</b>	<b>100.0</b>	<b>25</b>
Blood transfusion	138	354	5.8	12.0	156
Upper gastrointestinal endoscopy (procedure to view and biopsy the esophagus, stomach and first portion of intestine through a lighted tube)	122	134	5.2	4.5	10
Respiratory intubation and mechanical ventilation	65	108	2.8	3.7	66
Treatment, fracture or dislocation of hip and femur	87	84‡	3.7	2.8	-3
Echocardiogram (diagnostic ultrasound of heart)	65	79‡	2.7	2.7	23

† Includes a small number of discharges (less than 41,000 or 0.1 percent) with missing age.

‡ 2007 discharges are not statistically different from 1997 discharges at p<0.05.

\* Statistics based on estimates with a relative standard error (standard error/weighted estimate) greater than 0.30 or with standard error equal to 0 in the nationwide statistics are not reliable.

Source: AHRQ, Center for Delivery, Organization, and Markets, Healthcare Cost and Utilization Project, Nationwide Inpatient Sample, 1997 and 2007.

While some of the most frequent procedures tended to vary by age group, some were common in several age groups.

- Blood transfusion was a top five procedure in all age groups except infants less than 1 year and individuals 18-44 years old. It was the third most common procedure for 1-17 year olds and the first for adults 45-64, 65-84, and 85 years and older.

- Blood transfusion was one of the fastest growing procedures from 1997 to 2007: 72-percent increase for 1-17 year olds, 187-percent increase for 45-64 year olds, 127-percent increase for 65-84 year olds, and 156-percent increase for patients 85 years and older.
- Procedures for respiratory intubation/mechanical ventilation were common among four of the age groups (infants, adults 45-64 and 65-84 years old, and seniors 85 years and older) and represented 4 to 5 percent of discharges in each age group.
  - Respiratory intubation grew rapidly from 1997 to 2007. It almost doubled in the 45-64 age group and was up 24 percent for infants, 31 percent for 65-84 year olds, and 66 percent for 85 and older.
- Upper GI endoscopy was common among 45-64 year olds and both senior age groups (65-84 and 85 years and older). From 1997 to 2007, the number of discharges grew for 45-64 year olds (34 percent) and patients 85 years and older (10 percent). For 65-84 year olds, however, the number of discharges decreased by 7 percent.
- Diagnostic cardiac catheterization and coronary arteriography were common for 45-64 year olds (641,000 procedures) and 65-84 year olds (656,000 procedures). Growth in these procedures was insignificant, consistent with the negligible growth (1 percent) in this procedure for all ages (Exhibit 3.1).
- The fifth most frequent procedure for patients 45-64 and 65-84 was PTCA, a procedure that uses a balloon-tipped catheter to enlarge a narrowed artery. This procedure was performed during 320,000 stays for 45-64 year olds and 332,000 stays for 65-84 year olds in 2007.

#### For infants:

- The most common procedures performed on infants were routine procedures, such as circumcision (performed in 25.3 percent of infant stays), vaccinations (performed in 28.5 percent of infant stays), and vision and hearing diagnosis and treatment (performed in 10.4 percent of infant stays).
  - In 2007, 1.3 million circumcisions were completed in the hospital.
  - Procedures on infants also included those done for complex conditions affecting severely ill babies, such as enteral/parenteral nutrition, or tube feeding (performed during 124,000 infant stays in 2007).
  - The use of tube feeding during infant hospitalizations increased 219 percent, compared with a 16-percent growth in all infant discharges.

#### For children 1-17:

- Overall, hospitalizations for children declined 9 percent between 1997 and 2007.
- Appendectomy was the most common procedure for children 1-17 years old, accounting for 4.9 percent of hospitalizations in this age group.
- Other top procedures common in stays for children included repair of obstetric laceration in teen deliveries, cancer chemotherapy, and artificial rupture of membranes to assist in teen delivery.

#### For adults 18-44:

- All five of the most common procedures were related to pregnancy and childbirth for adults 18-44 years old.
  - C-sections and repair of obstetric laceration were the most frequently performed procedures. These procedures each occurred in over 13 percent of all discharges for this age group, up from 8.2 percent for C-sections and 11.4 percent for obstetric lacerations in 1997.
  - C-sections increased by 87 percent from 1997 to 2007, among the fastest-growing of the top five procedures for young adults.
  - Episiotomy, a surgical incision to prevent traumatic tearing during vaginal delivery, was the fifth most frequently occurring procedure in this age group. However, the number of these procedures performed has decreased by 56 percent between 1997 and 2007.
  - Other common procedures experienced growth between 1997 and 2007, including artificial rupture of membranes to assist delivery (up 59 percent) and fetal monitoring (up 27 percent).

For adults 45-64 and 65-84:

- In 2007, the five most frequently performed procedures were the same for individuals 45-64 and 65-84 years old. These procedures were blood transfusions, diagnostic cardiac catheterization and coronary arteriography, respiratory intubation and mechanical ventilation, upper GI endoscopy, and PTCA discussed earlier in this section.
  - Blood transfusion was the leading procedure for 45-64 year olds and 65-84 year olds. Discharges with this procedure have more than doubled for each age group between 1997 and 2007.
  - Diagnostic cardiac catheterization and coronary arteriography was the second most common procedure performed and accounted for 7.0 and 6.4 percent of the hospital stays in each of these age groups.

For adults 85 years and older:

- For patients 85 years and older, treatment of a fracture or dislocation of the hip and femur and echocardiograms were among the top procedures performed during a hospital stay that appeared only in this age group.
  - Discharges for treatment of a hip fracture or dislocation changed very little (-3 percent) from 1997 to 2007.
  - Similarly, the number of echocardiograms performed in 2007 (79,000) was not very different from the number performed in 1997 (65,000).
- Twelve percent of all hospital stays for this age group involved blood transfusions, the largest share for any age group.