DIVERSION SYSTEM OVERVIEW

The Greater Portland Metropolitan Area (Multnomah, Clackamas, Columbia, and Washington Counties, and in coordination with Clark County, Washington) is a large geographic area with a growing population. There is a complex network of medical providers, and hospital systems servicing the area. The Portland Metro Five County Emergency Medical System (EMS) values transporting patients to the hospital of their choice, and also getting patients to the right hospital for specialty services. These systems require coordination between patient transport and patient destination, ensuring continued use and availability of emergency medical resources to the community. The patient diversion guidelines exist to provide guidance for emergency departments and ambulance providers during high capacity times. The guidelines are a collaborative effort between many stakeholders that include hospitals, ambulance providers, county oversight agencies, and the Oregon Association of Hospitals and Health Systems (OAHHS).

This policy does not pertain to prescheduled, non-emergency, or inter-facility transports.

A. PURPOSE

Ambulance diversion is a hospital short-term management tool used as a last resort when the patient load overwhelms ED resources after internal diversion avoidance procedures have been implemented. Ambulance diversion is not to take the place of effective patient volume management processes. This protocol defines how the Portland Metro Quad-County EMS system will effectively manage situations where the diversion of an ambulance may be necessary and when such diversions may have an adverse effect on individual patient care or the EMS system.

B. PHILOSOPHY

The Greater Portland Metropolitan Area hospitals will make every effort to avoid the diversion of ambulances which may result in:

1. Transporting patients away from their hospital or physician of choice.
2. Prolonged prehospital care for unstable or critically ill patients.
3. Prolonged transport times.
4. Attempts by field personnel to predict the specific diagnostic and therapeutic resources needed by individual patients.
5. Reduced ED availability to the community.
6. Reduced ambulance availability to the community.

This protocol sets the standard that diversion should be the exception rather than the rule.

C. OBJECTIVES

1. To promote efficient and effective provision of EMS services in accordance with county ambulance service plans, codes, as well as state and federal regulations.
2. To assure hospitals develop and adhere to diversion avoidance strategies.
3. To assure hospitals limit diversion to ED patient safety reasons and remove diversion status immediately after the patient safety issue has been resolved.
4. To provide consistent definitions and agreed upon procedures to guide each hospital.
5. To assure system accountability and quality improvement to facilitate the goal of limiting diversion.
6. To report and collect meaningful data, which more accurately defines prehospital and hospital EMS demand, service consumption, and resource availability.

7. To identify a system of accountability and quality improvement by providing diversion data to all participants monthly.

D. DEFINITIONS

1. All Divert No Divert – When all hospitals in a zone go on diversion simultaneously (all close), the HOSCAP/OCS system or zone manager will immediately open all hospitals within the zone. No zone or all hospitals within a zone will be allowed to close for zone management unless authorized by the EMS medical director/zone manager for emergent reasons.
2. Disaster Management – Epidemic, pandemic, inclement weather, man-made or natural disaster, zone management, mass casualty incident, or other circumstances that challenge emergency services abilities to continue meeting patient care demand.
3. Diversion – The redirection of an ambulance from an intended receiving facility to an alternate receiving facility due to a sudden, unanticipated, temporary inability to receive any additional 9-1-1 patients; or safely care for additional **critical/unstable** patients in the ED.
4. Inter-Facility Transfers – Hospital destination is pre-determined by physician-to-physician communication as a formal transfer.
5. HOSCAP/OCS – State owned and managed, data system for distribution of hospital status information and incident management.
6. Regional Hospital – A medical facility designated to coordinate Mass Casualty Incident (MCI) or disaster situations co-located with Trauma Center Communications (TCC) and Medical Resource Hospital (MRH) which provides online medical control for Multnomah, Clackamas, Washington and Clark Counties, currently located within Oregon Health Science University (OHSU).
7. Zone Manager – An agency or facility authorized to provide coordination to pre-hospital care providers and hospitals during times of zone wide diversion.
8. ED Diversion Status Categories:
    a. OPEN (GREEN) – The ED can accept patient(s) transported from an ambulance.
    b. CLOSED (RED) – The ED is unable to accept patient(s) transported from an ambulance; except:
        i. Uncontrolled airway
        ii. Non-trauma patient too unstable to transport to another facility
        iii. Patient refuses alternate facility
        iv. Prearranged inter-facility transfer
        v. Pregnant patients > 20 weeks gestation or illness or injury which could have a potential life-threatening effect on the mother and/or the fetus.
9. Trauma Diversion Status Categories:
    a. TRAUMA YELLOW – A designated trauma hospital has declared that trauma restrictions exist, and some trauma related services may be limited.
    b. TRAUMA RED – A designated trauma hospital will divert to another trauma hospital when it has exceeded its capacity of personnel, equipment, or facilities to assess and care for trauma patients.
10. Life Flight Network Status:
    a. GREEN – Available
    b. YELLOW– On stand-by for another patient
    c. RED – Unavailable

Destination Hospital/Services Abbreviation and EMS Abbreviations:

1	DC	Doernbecher Children's Hospital (located within OHSU ED)	Portland
2	EM	Legacy Emanuel Medical Center	Portland
3	EC	Legacy Randall Children's Hospital (located in Emanuel's ED)	Portland
4	GS	Legacy Good Samaritan Medical Center	Portland
5	MH	Legacy Mt. Hood Medical Center	Gresham
6	MP	Legacy Meridian Park Medical Center	Tualatin
7	SC	Legacy Salmon Creek Medical Center	Vancouver
8	PA	Adventist Medical Center	Portland
9	PM	Providence Milwaukie Hospital	Milwaukie
10	PR	Providence Portland Medical Center	Portland
11	SK	Kaiser Sunnyside Medical Center	Clackamas
12	SV	Providence St. Vincent Medical Center	Portland
13	SW	PeaceHealth Southwest Medical Center	Vancouver
14	TH	Hillsboro Medical Center	Hillsboro
15	UH	Oregon Health Sciences University Hospital	Portland
16	UC	Unity Center for Behavioral Health	Portland
17	VA	Veterans Administration Hospital	Portland
18	WF	Providence Willamette Falls Hospital	Oregon City
19	WK	Kaiser Westside Medical Center	Hillsboro
20	LF	Life Flight Network	Hillsboro
21	MW	Metro West Ambulance	Hillsboro
22	WCEO	EMS Washington County EMS Office	Hillsboro
23	AMR	American Medical Response	Portland

E. ED AMBULANCE DIVERSION CRITERIA

It is the expectation that all hospitals receiving 9-1-1 patients make every effort to be continuously open and available.

1. Diversion is not to be initiated for:
    a. Lack of in-patient staffing or inpatient/ICU beds.
    b. Key resources being reserved for anticipated elective patient care (i.e., elective surgical cases or radiological studies).
    c. Routine ED overcrowding:
        i. Full waiting room
        ii. Long waiting room time
        iii. Extended LOS of ESI 3, 4, 5s
        iv. ED boarders
2. ED diversion may be initiated under the following conditions:

    By the hospital:
    a. ED charge nurse and ED physician leader determine that the ED is reaching capacity with critical/unstable patients occupying all ED care spaces.
    b. ED charge nurse and ED physician leader have attempted to accommodate increased demand by following their internal ED surge plan yet determine that ambulance diversion is necessary to safely care for patients in the ED because:

i. There are not enough resources to safely care for additional **critical/unstable** patients in the ED.
ii. There is a loss of CT scanner capability.
iii. There is an in-house disaster which compromises patient care/safety (i.e., fire, flooding, or electrical power outage).

By the EMS system:

a. For nonstandard or extended off-load times of 35 min or greater – collaboration will occur with the EMS supervisor and affected ED(s) leadership to develop a patient placement plan.
b. Under the discretion of the EMS medical director.

3. Hospitals request diversion via HOSCAP/OCS. Hospital initiated diversion events will last no longer than two hours before HOSCAP/OCS automatically opens the hospital to ambulance traffic again and the hospital will not be allowed to request diversion for two hours.
4. In the event a hospital is unable to change their status in HOSCAP/OCS, (i.e., connection problems), the hospital may contact the zone manager to authorize the zone manager to change the hospital status in HOSCAP/OCS.
5. A hospital's diversion status at the time ambulance transport begins with a loaded patient will determine the ability of the hospital to accept patients. To ensure the up-to-the-minute ability of a hospital to accept a patient, a transporting unit will contact dispatch requesting the status of the preferred destination hospital when the patient has been loaded and as they are preparing to depart the scene. Diversion of a patient shall not occur after the transport has begun.

F. TRAUMA AMBULANCE DIVERSION CRITERIA

1. The intent of the Trauma System is that only one of the designated Level 1 Trauma Centers may divert at a time: OHSU/Doernbecher's Children or Legacy Emanuel/Randall's Children.
   a. When one of the Level 1 (adult or pediatric) trauma centers goes on diversion status, notification of diversion status to the other designated trauma center must occur. Trauma patients will then be diverted to the other trauma center.
   b. When both Level 1 trauma centers are at capacity, the Trauma Center Communications Center will be notified to begin rotating trauma patients between the two trauma hospitals until the situation has stabilized or either hospital is able to return to standard operations. The Regional Hospital may also need to do an "All Call" to other community hospitals activating the MCI or disaster system to coordinate distribution of trauma patients.

G. MULTNOMAH COUNTY PEDIATRIC HOSPITAL ED'S

1. When one of the dedicated Multnomah County pediatric EDs (Doernbecher's Children and Randall's Children) goes on diversion status, notification of diversion status to the other designated pediatric ED must occur. Pediatric patients will then be diverted to the other pediatric ED.

2. When both Multnomah County pediatric EDs are on diversion, the OHSU zone manager will rotate destination between the two Multnomah County pediatric ED's until the situation has stabilized or one of the pediatric EDs returns to green status.

H. ZONE MANAGEMENT

Hospitals are grouped into the following geographical zones:

West Zone	Central Zone	South Zone	North Zone	East Zone
Providence St. Vincent Medical Center	Legacy Emanuel Medical Center/Randall Childrens Hospital	Kaiser Sunnyside Medical Center	PeaceHealth SW Medical Center	Portland Adventist
Legacy Meridian Park Medical Center	Legacy Good Samaritan Medical Center	Providence Milwaukie	Legacy Salmon Creek Medical Center	Providence Portland Medical Center
Hillsboro Medical Center	Oregon Health Science University/Doernbecher Childrens	Providence Willamette Falls		Legacy Mount Hood
Kaiser Westside Medical Center	Portland VA Medical Center			
	Unity Center for Behavioral Health			
Zone Manager Metro West	**Zone Manager** Regional Hospital	**Zone Manager** Regional Hospital	**Zone Manager** Regional Hospital	**Zone Manager** Regional Hospital

1. When multiple hospitals go on diversion at the same time it poses a challenge to other hospitals trying to stay open. In the event all hospitals in a zone go on diversion simultaneously, an All DIVERT NO DIVERT process will be initiated and the HOSCAP/OCS system or zone manager will immediately open all hospitals within the zone.
2. Occasionally, for emergent reasons, i.e., MCI, the zone manager may need to initiate zone management. In the event this is required to enhance the EMS system or provide for public safety the zone manager will initiate diversion by:
    a. Initiating "Active Zone Management" for the zone(s) affected and will facilitate an "all call" via the 800 MHz radio to hospitals informing them of the "Active Zone Management" status.
    b. Local ambulance providers/dispatch centers will notify their respective ambulances that zone management is in effect for the defined zone(s) and that their units are to contact the zone manager to obtain hospital destination(s).
    c. Under zone management, the zone manager will determine the destination of all ambulances within the affected zone(s).
    d. Ambulances may go outside their zone during zone management if their destination hospital is GREEN, this may be done based on patient and EMS provider agreement and following patient treatment and transport guidelines on the final destination. This includes honoring previously agreed upon destinations.

e. Rotation will continue with one patient per hospital as determined by the zone manager. Note: the rotation will not apply to the trauma hospitals for trauma entry patients. Trauma hospitals participating in zone management will adhere to the trauma diversion portion of the ambulance diversion policy located above.
f. Trauma, STEMI, stroke, pediatric, and behavioral patient care protocols will continue.
g. Prior to discontinuing zone management, the zone manager will monitor key area hospitals and ambulance providers. When system resources are above the activation threshold the zone manager may discontinue zone management.
h. When appropriate, the county EMS Medical Director will participate in this discussion for the zones within their jurisdictional boundaries.

I. DISASTER MANAGEMENT

1. Hospital destinations will be coordinated by Regional Hospital through HOSCAP/OCS and according to regionally and locally adopted EMS protocols.
2. During times of disaster management, situational status updates should be initiated and continued in four-hour operational intervals to provide updates to stakeholders.
    a. Disaster management as reported by community emergency responders.
    b. Any one facility activating their internal emergency management protocol.
    c. Actual or forecasted inclement weather.
    d. Any zone requiring persistent zone management.
    e. Circumstances as deemed appropriate by emergency operations officials or county EMS Medical Director(s).
3. Stakeholders involved in proactive (thresholds) communications may include:
    a. Medical directors/ED physicians.
    b. Managers or their designee, assistant nurse managers, charge nurses, house supervisors, AOC/AOD, executive leadership, hospital HICS members.
    c. Fire and EMS officials.
    d. Public health officials.
    e. Others, as appropriate.

J. SIGNIFICANT EVENTS PROCESS FOR DIVERSION DEVIATION:

1. Inclement weather, hazardous road conditions, heavy snow, ice storms, or other unusual conditions may prevent ambulance crews from transporting patients to their hospital of choice. County EMS authorities shall have a process in response to these unusual circumstance and significant events. The significant event process has been developed to modify operations to better manage and coordinate EMS resources during large scale incidents or inclement weather events in the Greater Portland Metropolitan Area.
2. During the significant event process:
    a. The impacted area's zone manager will be responsible for communicating the modification of EMS transport destinations to affected hospitals.
    b. Activation of the significant event process or modified EMS operations is under the authority of county EMS administration and medical direction. This

is generally done in consultation with emergency ambulance providers and hospitals as well as fire first response and emergency dispatch supervisors.

c. Dependent on the nature of the event, Regional Hospital may establish hospital destinations.
d. Consideration will be given to patients requiring specialized care such as trauma, STEMI, stroke, behavioral, burn, hyperbaric, pediatric and obstetrical patients.
e. Every effort will be made to accommodate the patient's wishes for destination, however during a significant event; determination of the most appropriate facility may consider patient and crew safety.
f. Final determination of patient destination must rest with the treating paramedic actually caring for the patient. This paramedic, in consultation with EMS operational supervisors and zone managers, as well as acting in accordance with county laws, and medical protocols, and with the ability to seek medical consultation, has the most direct knowledge of the patient's condition and conditions affecting transport.

3. The patient requires transport emergently to the closest hospital when in the judgement of the treating paramedic the patient is unstable and patient transport guidelines recommend transport to the closest hospital regardless of diversion status.
4. Anytime a patient is transported to a hospital other than the one requested the reason for the change and the destination hospital shall be documented on the Prehospital Care Report.

K. <u>ACCOUNTABILITY AND QUALITY IMPROVEMENT:</u>

1. The hospitals will:

   a. Develop an internal policy and systems to avoid diversion.
   b. Submit updated ED surge plan annually to the ED/EMS Leadership Collaborative.
   c. Ensure a hospital ED leader attends the monthly ED/EMS Leadership Collaborative meeting to review any diversion events the from the prior month and share what action planning is occurring to reduce diversion utilization.

2. County EMS will report number of hours and category of diversion to all zones based on information in HOSCAP/OCS.
3. The ED/EMS Leadership Collaborative is responsible for the monitoring of region-1 diversion hours and events, provide recommendations for quality improvement, and is responsible for the annual evaluation and revision to the Multnomah Operations Policy 50.030 Diversion System and the Quad-County consortium Ambulance Diversion Guidelines 50.015. The ED/EMS Leadership Collaborative is a cooperative effort between involved EMS agencies, hospitals, their ED managers, and ambulance providers.
4. Problems related to the implementation of these guidelines should be forwarded to the chair of the ED/EMS Leadership Collaborative.

Organizations in Support of These Guidelines

<u>HOSPITALS</u>
Adventist Medical Center
Doernbecher Children's Hospital
Hillsboro Medical Center

Kaiser Sunnyside Medical Center
Kaiser Westside Medical Center
Legacy Emanuel Medical Center
Legacy Good Samaritan Medical Center
Legacy Meridian Park Medical Center
Legacy Mt. Hood Medical Center
Legacy Salmon Creek Medical Center
Oregon Health Sciences University
Providence Milwaukie Hospital
Providence Portland Medical Center
Providence St. Vincent Medical Center
Randall Children's Hospital
PeaceHealth SW
Unity Behavioral Health
Veterans Administration Hospital
Willamette Falls Hospital
Oregon Association of Hospitals and Health Systems

COUNTY EMS REGULATORY AGENCIES FOR THE FOLLOWING COUNTIES
Washington County
Clackamas County
Clark County
Multnomah County

AMBULANCE PROVIDERS
American Medical Response
Banks Fire District
Canby Fire Department
Camas Fire Department
Clackamas County Fire District 1
Cornelius Fire Department
Forest Grove Fire & Rescue
Gaston Rural Fire District
Hillsboro Fire & Rescue
Molalla Fire Department
Metro West Ambulance
North Country Ambulance
Life Flight Network
Tualatin Valley Fire & Rescue

Ambulance Diversion Guidelines – 50.015

TABLE: HOSPITAL SERVICES

HOSPITAL	BURN UNIT	CARDIAC SURGERY	DECON	HELI PAD	HYPER BARIC	OB	NICU	PEDS INPT	PICU	PSYCH IN-PATIENT	TRAUMA CENTER	CATH LAB	INR	LVAD	STROKE INTERVENTIONAL
Adventist		X	X	X		X				X		X			
Doernbecher Children's		X	X	X			X	X	X	X	X				
Kaiser Sunnyside		X	X			X				X		X		X	X
Kaiser Westside						X									
Randall Children's Hospital Legacy Emanuel	X	X	X	X (2)		X	X	X	X	X	X				
Legacy Emanuel	X	X	X	X	X	X				X	X	X	X		X
Legacy Good Samaritan		X	X			X				X		X			
Legacy Meridian Park			X	X		X						X			
Legacy Mount Hood			X	X		X						Dx only			
Legacy Salmon Creek			X	X		X	X	X		X		Dx only			
OHSU		X	X	X (3)		X	X	X	X	X	X	X	X		X
Peace Health SW Washington		X	X	X		X	X	X		X	X	X	X		
Providence Milwaukie			X	Designated area		X									
Providence Newberg			X	X		X									
Providence Portland		X	X	X		X				X		X	X		X
Providence St. Vincent		X	X	X		X	X	X		X		X	X	X	X
Providence Willamette Falls			X	X		X									
Tuality Community		X	X	X		X						X			
Unity Center for Behavioral Health										X					
Veteran's Administration			X							X					