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Owner:	*Loris Cook: Manager, Operating Room Unit*
Policy Area:	*Operating Room*
References:	

Safe Use of Pneumatic Tourniquets, 30.50.47

Document Type: Policy, Standard

PURPOSE:

To provide guidelines for the correct testing, application, use, documentation and cleaning of pneumatic tourniquet equipment.

POLICY:

Tourniquets should only be used by appropriately trained individuals for the purpose of creating a bloodless sterile field. Orientation to multiple aspects of purpose, appropriate use, and troubleshooting is essential prior to using these items. Kadlec Regional Medical Center employs disposable cuffs for each patient. Proper protective devices are available when prep solutions are used close to the cuff. Documentation includes: personnel involved in the application, times of inflation and deflation, location and observation of site before and after application, the serial number of the inflation unit, and pressures during the procedure. If the established time parameters are exceeded, the surgeon will be notified and appropriate action taken.

PROTOCOL:

1. Prior to turning the tourniquet system on, tubing, connectors and closure apparatus should be inspected for wear, tears, or irregularities and replaced, if needed.
2. When turned on, the tourniquet system completes a self-testing calibration.
    a. The self test of the tourniquet system is verified and documented in the intraoperative record.
3. The circulator will:
    a. Verify and set pressure prior to activation of tourniquet system Check security and patency of tourniquet connections periodically during procedure. Select and place an appropriate tourniquet cuff based on patient's age, systolic blood pressure, anatomy, procedure, and medical condition.
4. Cuff will be positioned at the point of maximum circumference of the limb. Application of the cuff is performed by the nurse, Physician assist, physician.
5. Cuff will be applied by ensuring the padding and cuff is wrinkle free to prevent skin injury.
6. The cuff should not be rotated after placement. Doing so may result in mechanical injury to the patient's skin.
7. Tourniquet pressure will be set per physician request, considering the factors above. Also considered is

the cuff width and circumference of the patient's limb. The minimum pressure that will produce a bloodless field should be used as a guideline for inflation pressure.

8. Skin prep solution shall not be allowed to pool or collect under the cuff. A tourniquet protector such as a plastic drape should be used to minimize cuff soiling.
9. Communication between the circulator and the Anesthesia provider is ongoing related to patient status during tourniquet use. The circulator/Anesthesia provider will alert the surgeon to duration of tourniquet inflation time at 1 hour and every 30 minutes thereafter. Tourniquet inflation time should be as short as possible. Generally, the tourniquet time should not exceed one hour on the upper extremity or 1 1/2 – 2 hours on the lower extremity. However, the surgeon may request additional time at their discretion. If this is the case, the tourniquet will be deflated and a period of reperfusion is required (10-20 minutes or more). The tourniquet may then be re-inflated for another full period.
10. The following information will be documented on the patient's operative record
    a. Identification of person applying cuff
    b. Tourniquet systems identification number (KRMC #)
    c. Time of cuff inflation
    d. Time of cuff deflation
    e. Pressure setting
    f. Location of cuff
    g. Use of skin protection

After each procedure, all disposables will be removed from the tourniquet system unit. The unit, connecting tubing and cords will be wiped down with an approved disinfection solution, reassembled and readied for use.

Attachments:

No Attachments

Approval Signatures

Approver	Date
Kirk Harper: VP, Nursing & CNO	08/2017
Crystal Wise: Administrative Assistant	07/2017
Loris Cook: Manager, Operating Room Unit	07/2017