American Urological Association Statements Regarding Cryoablation

Prostate Cancer
In summary, a review of the historical evolution of cryosurgery provides two overriding messages, the first being that there is evidence of therapeutic benefit, and the second, that treatment-associated morbidity has been reduced as technological refinements have emerged.

Renal Masses
For Index Patient No. 2: A patient with major comorbidities/increased surgical risk and a clinical T1a (≤4.0cm) enhancing renal mass
Recommendation: Thermal ablation should be discussed as a less-invasive treatment option which may be advantageous in this high surgical risk patient, acknowledging the increased risk of local tumor recurrence compared to surgical excision.
**PROSTATE CRYOSURGERY**

- Minimally invasive.
- Outpatient procedure.
- Can be performed with spinal block.
- Appropriate for low, moderate and high risk patients.
- Treatment option for post-radiation recurrence patients.
- Technology improvements provide precise treatment.

**V-PROBE**

- 5 POSITION VARIABLE CRYOPROBE™ INSTRUMENT
  - Next generation technology allows physicians to adjust the length of the isotherm to fit the prostate.
  - Works with Endocare’s intraoperative prostate planning software to calculate cryoprobe placement and iceball length.
  - Variable slider creates 5 different isotherms from the same cryoprobe, 1.5cm to 5.0cm.

**CYROCARE CS® SYSTEM**

- Integrated ultrasound imaging.
- CRYOGUIDE® planning software.
- Individual probe control.
- TEMPPROBE® temperature monitoring system.
- Closed-loop urethral warming system.

**FULL GLAND FREEZE**

This illustration demonstrates the use of six V-PROBES positioned on both sides of the prostate separated by <2.0 cm. The V-PROBE isotherms are adjusted based on the size of the prostate so that only the prostate is encapsulated in lethal ice (<-40°C). In this illustration, the ice balls from the V-PROBES are still forming and will eventually coalesce (typically at 10 minutes).

**FULL GLAND FREEZE BEYOND THE PROSTATE CAPSULE**

This illustration demonstrates the use of six V-PROBES positioned on both sides of the prostate separated by <2.0 cm. A full gland freeze encapsulates the entire prostate with lethal ice (<-40°C). In this illustration, the ice balls from the V-PROBES are still forming and will eventually coalesce (typically at 10 minutes). An extra safety margin can be created by extending the ice into the soft tissue beyond the prostate capsule.

**RIGHT ANGLE RENAL PROBES**

- Multiple ice ball sizes, probe lengths and diameters.

**RENA L TUMOR FREEZE USING ONE 3.8MM CRYOPROBE**

This illustration demonstrates the use of one 3.8mm right angle cryoprobe positioned at the center of the tumor. The freeze encapsulates the entire tumor with lethal ice (<-40°C). In this illustration, the ice ball from the cryoprobe is still forming and will eventually reach its maximum size (typically at 10 minutes). An extra safety margin is created by extending the ice a minimum of 1cm beyond the tumor.

**RENA L TUMOR FREEZE USING TWO 2.4MM CRYOPROBES**

This illustration demonstrates the use of two 2.4mm right angle cryoprobes positioned on both sides of the tumor and separated by <2.0cm. The freeze encapsulates the entire tumor with lethal ice (<-40°C). In this illustration, the ice balls from the cryoprobes are still forming and will eventually coalesce (typically at 10 minutes). An extra safety margin is created by extending the ice a minimum of 1cm beyond the tumor.

**RENA L TUMOR FREEZE USING THREE 1.7MM CRYOPROBES**

This illustration demonstrates the use of three 1.7mm right angle cryoprobes positioned on both sides and center to the tumor and separated by <1.0cm. A freeze encapsulates the entire tumor with lethal ice (<-40°C). In this illustration, the ice balls from the cryoprobes are still forming and will eventually coalesce (typically at 10 minutes). An extra safety margin is created by extending the ice a minimum of 1cm beyond the tumor.

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**RENAL CRYOTHERAPY TECHNOLOGY**

- Nephrone sparing treatment.
- Ability to treat tumors involving the collecting system.
- Minimally invasive method of treating incidental tumors.

**CYROPAN®**

- Integrated ultrasound imaging.
- CRYOGUIDE® planning software.
- Individual probe control.
- TEMPPROBE® temperature monitoring system.
- Closed-loop urethral warming system.

**CRYP CARE CS® SYSTEM**

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**Patented Vacuum Insulation**

minimizes freezing up the shaft and patient skin damage.
**Prostate Cryosurgery**

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- Outpatient procedure.
- Can be performed with spinal block.
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- Treatment option for post-radiation recurrence patients.
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**V-PROBE**

- 5 Position Variable Cryoprobe™ Instrument
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  - Works with Endocare’s intraoperative prostate planning software to calculate cryoprobe placement and iceball length.
  - Variable slider creates 5 different isotherms from the same cryoprobe, 1.5cm to 5.0cm.

**CRYOCARE CS® System**

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**Renal Cryosurgery**

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- Ability to treat tumors involving the collecting system.
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**Renal Cryo Care CS® System**

- Integrated ultrasound imaging.
- CRYOGUIDE® planning software.
- Individual probe control.

- TEMPPROBE® temperature monitoring system.
- Closed-loop urethral warming system.

**Renal Cryo Care CS® Technology**

- Patented Vacuum Insulation minimizes freezing up the shaft and patient skin damage.

**Renal Cryo Applications**

- Next generation technology allows physicians to adjust the length of the isotherm to fit the prostate.
- Works with Endocare’s intraoperative prostate planning software to calculate cryoprobe placement and iceball length.
- Variable slider creates 5 different isotherms from the same cryoprobe; 1.5cm to 5.0cm.

**Renal Tumor Freeze Using One 3.8 mm Cryoprobe**

This illustration demonstrates the use of one 3.8mm right angle cryoprobe positioned at the center of the tumor. The freeze encapsulates the entire tumor with lethal ice (<-40°C). In this illustration the ice balls from the cryoprobe are still forming and will eventually coalesce (typically at 10 minutes). An extra safety margin is created by extending the ice a minimum of 1cm beyond the tumor.

**Renal Tumor Freeze Using Two 2.4 mm Cryoprobe**

This illustration demonstrates the use of two 2.4mm right angle cryoprobes positioned on both sides of the tumor and separated by <2.0cm. The freeze encapsulates the entire tumor with lethal ice (<-40°C). In this illustration the ice balls from the cryoprobes are still forming and will eventually coalesce (typically at 10 minutes). An extra safety margin is created by extending the ice a minimum of 1cm beyond the tumor.

**Renal Tumor Freeze Using Three 1.7 mm Cryoprobes**

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