SAFE HARBOR STATEMENT

This presentation may be deemed to contain certain forward-looking statements with respect to the financial condition, results of operations and future plans of American Shared Hospital Services, which involve risks and uncertainties including, but not limited to, the risks of the Gamma Knife and radiation therapy businesses, the risks of developing The Operating Room for the 21st Century program, the risks of investing in Mevion Medical Systems, Inc., and the risks of the timing, financing, and operations of the Company’s proton therapy business. Further information on potential factors that could affect the financial condition, results of operations and future plans of American Shared Hospital Services is included in the filings of the Company with the Securities and Exchange Commission, including the Company’s Annual Report on Form 10-K for the year ended December 31, 2015, Quarterly Report on Form 10-Q for the quarter ended on March 31, 2016 and the definitive Proxy Statement for the Annual Meeting of Shareholders to be held on June 21, 2016.
## BUSINESS OPERATIONS

### CURRENT OPERATIONS

<table>
<thead>
<tr>
<th>Service</th>
<th>Centers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radiosurgery</td>
<td>17</td>
</tr>
<tr>
<td>Linear Accelerator Based Radiation Therapy</td>
<td>1</td>
</tr>
<tr>
<td>Proton Beam Radiation Therapy</td>
<td>1</td>
</tr>
</tbody>
</table>
GAMMA KNIFE

+ Gold Standard for Cranial Radiosurgery
+ Typical Project Cost $3 - $4 million
Historically, centers were 3-5 treatment room centers costing $150 - $200 million or more. New single room systems by Mevion Medical Systems and others have reduced the average cost per treatment rooms to $25 - $30 million.

ASHS
ASHS - BUSINESS MODEL

+ Structured as a (alternative) leasing company
+ Innovative financing features not available from traditional finance companies
ASHS - BUSINESS MODEL

+ Long Term Agreements
  • Typically 10 years

+ Revenue Sharing or Fee Per Use

NO MINIMUM VOLUME GUARANTEES
ASHS - BUSINESS MODEL

ASHS’ RESPONSIBILITIES

+ Acquire equipment
+ Equipment related operating expenses
+ Jointly fund marketing
ASHS - BUSINESS MODEL

HOSPITAL’S RESPONSIBILITIES

+ Site costs

+ Operating costs, excluding those covered by American Shared

+ Jointly fund marketing
GAMMA KNIFE TREATMENT INDICATIONS

+ Malignant Brain Tumors
  - Metastatic Brain Tumors
    (180,000 – 200,000 Diagnosed Annually)

+ Benign Brain Tumors

+ Trigeminal Neuralgia
  (Facial Pain)

+ Vascular Malformations

ASHS
“Don’t routinely add adjuvant whole brain radiation therapy to stereotactic radiosurgery for limited brain metastases”
ASHS - GAMMA KNIFE PARTNERS

1. Methodist Healthcare System
   San Antonio, TX

2. Yale-New Haven Hospital
   New Haven, CT

3. Kettering Medical Center
   Kettering, OH

4. Tufts Medical Center
   Boston, MA

5. University of Arkansas for Medical Sciences
   Little Rock, AR
ASHS - GAMMA KNIFE PARTNERS

6. JFK Medical Center
   Edison, NJ

7. Sunrise Hospital and Medical Center
   Las Vegas, NV

8. Central Mississippi Medical Center
   Jackson, MS

9. OSF Healthcare
   Peoria, IL

10. Lovelace Medical Center
    Albuquerque, NM

11. Northern Westchester Hospital
    Mt. Kisco, NY
12. Mercy Health Center
   Oklahoma City, OK
13. USC University Hospital
   Los Angeles, CA
14. Fort Sanders Regional Medical Center
   Knoxville, TN
15. St. Vincent’s Medical Center
   Jacksonville, FL
16. Sacred Heart Hospital
   Pensacola, FL
17. PeaceHealth Sacred Heart Hospital
   Springfield, OR
1. Tufts Medical Center
   Boston, MA
ASHS - PROTON BEAM RADIATION THERAPY

+ **NOT A NEW** technology
+ **Clinically** Advantageous
## PROTON THERAPY INDICATIONS TREATED

<table>
<thead>
<tr>
<th>+ Prostate</th>
<th>+ Breast</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ Head and Neck</td>
<td>+ Lymphomas</td>
</tr>
<tr>
<td>+ Lung</td>
<td>+ CNS</td>
</tr>
<tr>
<td>+ Liver</td>
<td>+ Pediatric</td>
</tr>
<tr>
<td>+ GI</td>
<td></td>
</tr>
</tbody>
</table>
1. The Marjorie and Leonard Williams Center for Proton Therapy at UF Health Cancer Center - Orlando Health
WHAT MAKES PROTON THERAPY SPECIAL

+ Protons deposit dose at tumor, versus x-rays passing through the tumor
+ Minimize damage to surrounding tissue
ASHS - BRAGG PEAK PHENOMENA

15 MV PHOTONS vs SOBP PROTONS

Ideal dose distribution

Photons keep going down

Protons stop!

Tumor

Protons

Photons

Depth (cm)
ASHS - PHOTON VS. PROTON

PEDIATRIC MEDULLOBLASTOMA

Photon Beam Delivery

Proton Beam Delivery

% Dose
Recommended

100
50
10

American Shared Hospital Services • 21
### ASHS - UNITED STATES PBRT MARKET ANALYSIS

<table>
<thead>
<tr>
<th>PBRT CAPTURE RATE</th>
<th>15% ²</th>
<th>30% ³</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of radiation therapy patients annually in the U.S. ¹</td>
<td>995,000</td>
<td>995,000</td>
</tr>
<tr>
<td>Percent of radiation therapy patients eligible for PBRT</td>
<td>15%</td>
<td>30%</td>
</tr>
<tr>
<td>Number of potential PBRT patients in the U.S.</td>
<td>149,250</td>
<td>298,500</td>
</tr>
<tr>
<td>Potential PBRT room market*</td>
<td>597</td>
<td>1,194</td>
</tr>
</tbody>
</table>

*Assumed 250 patients treated annually per PBRT room

(1) The American Cancer Society indicates that 1,658,370 people in the United States will be diagnosed with cancer in 2014. Approximately 60% of these people will receive radiation treatment.

(2) “Number of Patients Potentially Eligible for Proton Therapy,” Acta Oncologica 2005; 44; 836-849; Bengt Glimelius, Anders Ask, Et. Al.

(3) “Evaluation of Potential Proton Therapy Utilization in a Market Based Environment,” Tomas Dvorak, M.D. and David E. Wazer, M.D.
ASHS - PBRT OPPORTUNITY

+ Currently only 21 PBRT centers in U.S.
+ 9 PBRT centers under development in U.S.
ASHS - PROTON THERAPY STRATEGY

+ Develop single room proton beam radiation therapy centers with major hospitals
Current Medicare Reimbursement: approximately $1,150 per fraction (daily session). A course of treatment runs 25-30 fractions.

Established centers treat 20-35 patients per day, per treatment room.
PROTON THERAPY MARKET ANALYSIS

- Utilizes same business model as the Gamma Knife. Expect margins to be similar
- For ASHS, each treatment room offers potential for substantial incremental revenue and EBITDA
### ASHS - MANAGEMENT TEAM

<table>
<thead>
<tr>
<th>MANAGEMENT TEAM</th>
<th>Years of Healthcare Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ernest A. Bates, M.D.</td>
<td>30+</td>
</tr>
<tr>
<td>Chairman and CEO</td>
<td></td>
</tr>
<tr>
<td>Craig K. Tagawa</td>
<td>30+</td>
</tr>
<tr>
<td>COO and CFO</td>
<td></td>
</tr>
<tr>
<td>Ernest R. Bates</td>
<td>10+</td>
</tr>
<tr>
<td>V.P. of Sales and Business Development</td>
<td></td>
</tr>
</tbody>
</table>
**ASHS - SUMMATION**

+ **Profitable supplier** of Gamma Knife services since 1991

+ **Long-standing alliances** with premier cancer centers
ASHS - SUMMATION

POSITIONED FOR GROWTH IN EMERGING PROTON THERAPY MARKET

+ Development and financing of Orlando project establishes ASHS’ proton bona fides

+ First proton therapy center now treating patients

+ Expect modest revenue contribution in June quarter, much more substantial in second half and beyond

+ Negotiating development of additional proton centers