**MHIF FEATURED STUDY: ACURATE IDE**

**DESCRIPTION:**
To evaluate safety and effectiveness of the ACURATE neo 2™ Transfemoral Aortic Valve System for transcatheter aortic valve replacement (TAVR) in symptomatic subjects with severe aortic stenosis who are considered at intermediate or greater risk for surgical valve replacement.

*Prospective, multicenter, 1:1 randomization to any commercially available TAVR device.*

**CRITERIA LIST/QUALIFICATIONS:**

**Inclusion**
1. Severe native aortic stenosis defined as initial AVA $\leq 1.0 \text{ cm}^2$ (or AVA index $\leq 0.6 \text{ cm}^2/\text{m}^2$) AND a mean pressure gradient $\geq 40 \text{ mm Hg}$ OR maximal aortic valve velocity $\geq 4.0 \text{ m/s}$ OR Doppler velocity index $\leq 0.25$ as measured by echocardiography and/or invasive hemodynamics
2. Aortic annulus size of $\geq 21 \text{ mm}$ and $\leq 27 \text{ mm}$
3. Symptomatic aortic valve stenosis per IC1 definition above with NYHA Functional Class $\geq II$

**Exclusion**
1. Unicuspid or bicuspid aortic valve
2. Previous acute myocardial infarction within 30 days prior to the index procedure
3. Subject has severe aortic, tricuspid, or mitral regurgitation

**CONDITION:**
Symptomatic Severe Aortic Stenosis (AS)

**PI:**
Santiago Garcia, MD

**RESEARCH CONTACT:**
Karen Meyer, RN
Karen.Meyer2@allina.com | 612-863-5855

**SPONSOR:**
Boston Scientific

**OPEN AND ENROLLING:**
Please Refer Patients!
Minneapolis Heart Institute Foundation® Cardiovascular Grand Rounds

Title: Provider Wellness and Burnout; How to Boil A Frog
Speaker: Michele LeClaire, MD, MS
Senior Medical Director, Critical Care,
Hennepin Healthcare
Assistant Professor of Medicine, University of MN

Date: October 21, 2019
Time: 7:00 - 8:00 AM
Location: Minneapolis Heart Institute Building, Suite 100,
Learning Center

OBJECTIVES
At the completion of this activity, the participants should be able to:
1. Define burnout and current models for understanding it.
2. Measure burnout.
3. Construct basic points of action based on data.

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Moderator(s)/Speaker(s)
Dr. Michele LeClaire has disclosed that she DOES NOT have any real or apparent conflicts with any commercial interest as it relates to presenting the content in this activity/course.

Planning Committee
Dr. Alex Campbell, Jake Cohen, Jane Fox, Dr. Kevin Harris, Dr. Kasia Hryniewicz, Rebecca Lindberg, Amy McMeans, Dr. Michael Miedema, Dr. JoEllyn Moore, Pamela Morley, Dr. Scott Sharkey, Maia Hendel and Jolene Bell Makowesky have disclosed that they DO NOT have any real or apparent conflicts with any commercial interest as it relates to the planning of this activity/course. Dr. Mario Gössl has disclosed the following relationships - Edwards Life Sciences: Grant/Research Support; Abbott Vascular, Caisson: Consultant; Speaker’s Bureau: Edwards Lifesciences. Dr. David Hurrell has disclosed the following relationship -Boston Scientific: Chair, Clinical Events Committee.
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We would like to thank the following company for exhibiting at our activity.

Novartis

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Provider Wellness

Michele M. LeClaire, MD, MS
Office of Professional Worklife
Hennepin County Medical Center, Minneapolis MN

Provider Wellness
aka How to boil a frog

Michele M. LeClaire, MD, MS
Office of Professional Worklife
Hennepin County Medical Center, Minneapolis MN
Objectives

- Identify current definition and models of burnout
- Measure burnout – we are doing the Mini-Z
- Construct basic points of action based on data

Some discussion would make this more fun
Burnout defined

- Emotional Exhaustion
- Depersonalization
- Low personal accomplishment


The nation’s health care workforce is not healthy: Burnout at 54%


Tull D. Shamah, MD, Omar Hain, MBBS, MPH; Lurie N. Dyllys, MD, MPH; Christine Sinsky, MD, Daniel Satele, MD, Jeff Sloan, PhD, and Colin P. West, MD, PhD
Importance of this work

- Burnout
- Reduced patient adherence
- Decreased quality of care and increased medical errors
- Suicide
- Decreased patient satisfaction
- Increased patient disenrollment
- Decreased productivity and professional effort

**FIGURE 1.** Personal and professional repercussions of physician burnout.


### Making the business case – outcomes of dissatisfaction

<table>
<thead>
<tr>
<th>Description</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turnover: $500,000- 1,000,000/departing physician</td>
<td>Shanafelt et al. JAMA IM 2017; online</td>
</tr>
<tr>
<td>Instability (larger patient load for remaining providers)</td>
<td>Brown &amp; Gunderman. Acad Med 2006;81:577-82</td>
</tr>
<tr>
<td>1) access to care,</td>
<td></td>
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<tr>
<td>2) satisfaction,</td>
<td></td>
</tr>
<tr>
<td>3) medication adherence</td>
<td></td>
</tr>
<tr>
<td>Increased patient disenrollment</td>
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</table>
Burnout a long term stress reaction
Predictors of stress well known (time pressure, control, work-home interference, support, chaos, values alignment)
Burnout is **predictable**, and thus **preventable**

Demand–control model of job stress

- Demands balanced by control
- Stress increases if demands rise or control diminishes
- Support can facilitate impact of control
- Bottom line… support and control prevent stress


Burnout model

- Background variables
  - Academic practice
  - Solo practice
  - Work hours
  - Age
  - Gender
  - Partnered
  - Children
  - Years worked
- Mediating variables
  - Work control
  - Work–home interference
  - Home support
- Variable outcomes
  - Stress
  - Satisfaction
- Burnout

Gender differences

- US: 60% greater odds of burnout in women MDs (McMurray, *JGIM* 2000;15:372–80.)
- More burnout in US women MDs due to gendered expectations for listening (more psychologically complex patients)
- US women MDs describe faster pace, less values alignment with leadership (Horner-Ibler et al. *J Gen Intern Med* 2005; 20(s1):194)
- Solution: collaboration, understanding, flexibility, resources

MEMO Study conceptual model
### Workflow Redesign

<table>
<thead>
<tr>
<th>Workflow Redesign</th>
<th>Communication Improvement</th>
<th>Chronic Disease QI Projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>MA data entry</td>
<td>Improved teamwork</td>
<td>Establishing quality metrics with clinician input</td>
</tr>
<tr>
<td>Improved clinic efficiency projects</td>
<td>Improved communication between provider groups</td>
<td>Automated Rx refill line</td>
</tr>
<tr>
<td>Provided time for MAs and RNs to perform tasks</td>
<td>Routine clinician meetings discussing meaningful topics</td>
<td>Med reconciliation project</td>
</tr>
<tr>
<td>Paired MAs and providers</td>
<td>Surveyed providers for “wish list” issues</td>
<td>Screening project for diabetics</td>
</tr>
<tr>
<td>Non-physician staff assist with forms</td>
<td>Clinicians meeting with leaders</td>
<td>Screening for depression</td>
</tr>
</tbody>
</table>

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**A Cluster Randomized Trial of Interventions to Improve Work Conditions and Clinician Burnout in Primary Care: Results from the Healthy Work Place (HWP) Study**

Mark Linzer, MD¹,³, Sara Poplau, BA², Ellie Grossman, MD, MPH⁴, Anita Varkey, MD⁵, Steven Yale, MD⁶, Eric Williams, PhD⁷, Lanis Hicks, PhD⁸, Roger L. Brown, PhD⁹, Jill Wallock, BS⁵, Diane Kohnhorst, BS⁹, and Michael Barbouche, BS¹⁰
Organizational culture

- My ideas and suggestions are valued by my organization
- My organization helps me deal with stress and burnout
- Organizational leaders must stop treating physicians as employees
- Clinicians need to be embraced as partners in the delivery of care


Trust in organization

Facets of culture that affect physician trust in organization:
- Practice emphasis on quality over productivity
- Values alignment with leaders
- Practice emphasis on information/communication
- Collegiality/cohesion
- Work control

Linzer et al 2019 JAMA Open
### Mini Z survey 2.0 (for individual scoring)

For questions 1-10, please indicate the best answer. (Numeric score indicated by number next to response.)

1. Overall, I am satisfied with my current job:
   - 5 = Agree strongly
   - 4 = Agree
   - 3 = Neither agree nor disagree
   - 2 = Disagree
   - 1 = Strongly disagree

2. Using your own definition of "burnout", please choose one of the numbers below:
   - 5 = I enjoy my work. I have no symptoms of burnout.
   - 4 = I am under stress, and don’t always have as much energy as I did, but I don’t feel burned out.
   - 3 = I am beginning to burn out and have one or more symptoms of burnout, e.g. emotional exhaustion.
   - 2 = The symptoms of burnout that I’m experiencing won’t go away. I think about work frustrations a lot.*
   - 1 = I feel completely burned out. I am at the point where I may need to seek help.*
   *If you select 1 or 2, please consider seeking assistance – call your insurance provider or employee assistance plan (EAP)

3. My professional values are well aligned with those of my clinical leaders:
   - 5 = Agree strongly
   - 4 = Agree
   - 3 = Neither agree nor disagree
   - 2 = Disagree
   - 1 = Strongly disagree

4. The degree to which my care team works efficiently together is:
   - 1 = Poor
   - 2 = Marginal
   - 3 = Satisfactory
   - 4 = Good
   - 5 = Optimal

5. My control over my workload is:
   - 1 = Poor
   - 2 = Marginal
   - 3 = Satisfactory
   - 4 = Good
   - 5 = Optimal

6. I feel a great deal of stress because of my job:
   - 1 = Agree strongly
   - 2 = Agree
   - 3 = Neither agree nor disagree
   - 4 = Disagree
   - 5 = Strongly disagree

7. Sufficiency of time for documentation is:
   - 1 = Poor
   - 2 = Marginal
   - 3 = Satisfactory
   - 4 = Good
   - 5 = Optimal

8. The amount of time I spend on the electronic medical record (EMR) at home is:
   - 1 = Excessive
   - 2 = Moderately high
   - 3 = Satisfactory
   - 4 = Modest
   - 5 = Minimal/none

9. The EMR adds to the frustration of my day:
   - 1 = Agree strongly
   - 2 = Agree
   - 3 = Neither agree nor disagree
   - 4 = Disagree
   - 5 = Strongly disagree

10. Which number best describes the atmosphere in your primary work area?
    - Calm
    - Busy, but reasonable
    - Hectic, chaotic
    - 1 = Calm
    - 2 = Busy, but reasonable
    - 3 = Hectic, chaotic
    - 4 = Moderate
    - 5 = Minimal
1. Overall, I am satisfied with my current job

5 = Agree strongly
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Targets
> 80% satisfied
< 20% burned out
> 80% aligned
> 80% efficient teamwork
< 25% with poor control
< 30% stressed
< 25% time pressured
< 20% excessive EMR at home
< 20% frustrated
< 40% chaotic
HCMC Office of Professional Worklife 2015 – Present

- Provider Wellness Committee (dept-specific burnout reduction activities based on annual wellness survey data)
- Wellness Center – a place to workout, relax, meditate, read the paper, have coffee, connect
- EMR stress reduction interventions
- Reset Room
- Retreats, wellness champions, Chief Wellness Officer, individual counseling, burnout on organizational dashboard, organizational incentives to reduce burnout

Response 461/679 = 68%
Low Burnout in a safety net hospital: what’s going right?

**Summary**

- ICU Burnout 10% vs 36% in all other providers
- ICU job satisfaction, teamwork, and values alignment was high
- Odds of burnout were 4X lower for ICU providers vs others at HHS
- Values alignment was associated with 3X less burnout in all providers
- Non-beneficial care noted in 30% of MICU providers
- Work outside the ICU was narrated as protective

<table>
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*P-value from Chi Square Test

**Variable ICU (n=21) Other HHS providers (n=414) p-value**

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Demand–control model of job stress

- Demands balanced by control
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Examples

- Working parents in a primary care clinic stressed due to clinic ending late.
- High performing department with high stress and burnout. Anticipated higher volume for following year. EMR work was major issue.
- Department with very high stress and burnout. Deep dive survey – facilitated meeting with dept and leaders.
- APPs found to have higher burnout than physicians. Many qualitative comments – problems with keeping up with documentation.
How can we prevent burnout?

- Flexible/part-time work
  (Linzer et al. Acad Med 2009;84:1395-1400)
- Leaders model work–home balance; value well-being
- Understand and promote work control
- Alter our “culture of endurance”
- Wellness focus – reflection, exercise, share concerns with colleagues
  (LeMaire J. BMC HSR. 2010; 10:208)

Ways forward

- Acknowledge value of clinician time with patients
- Lengthen visits, build teams, pre–visit planning
- Floats to cover predictable life events
- Reduce RVU focus to decrease burnout, improve morale
- Make wellness a priority: favorable patient, provider and organizational outcomes will occur
Thank you for inviting me!

Michele.leclaire@hcmed.org for the Hennepin Healthcare Institute for Professional Worklife