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Stratifying Back Pain in Primary Care with the STarT Screening Tool

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(With contributions from Amanda Kolb MD)

Problem Identification

- Back pain is the number one cause of disability globally [2]
- Associated with 60.1 million years lived with disability in 2015 [2]
- Lifetime prevalence of up to 80% [7]
- Median number of office visits to see a physician is almost double for those with back pain [1]
- Those who suffer from back pain have higher rates of comorbid conditions such as smoking, obesity, and depression [2]
- The treatment of back pain is subject to over-allocation of healthcare resources. This causes higher costs for patients in addition to greater time commitments that they may not have.

Public Health Costs

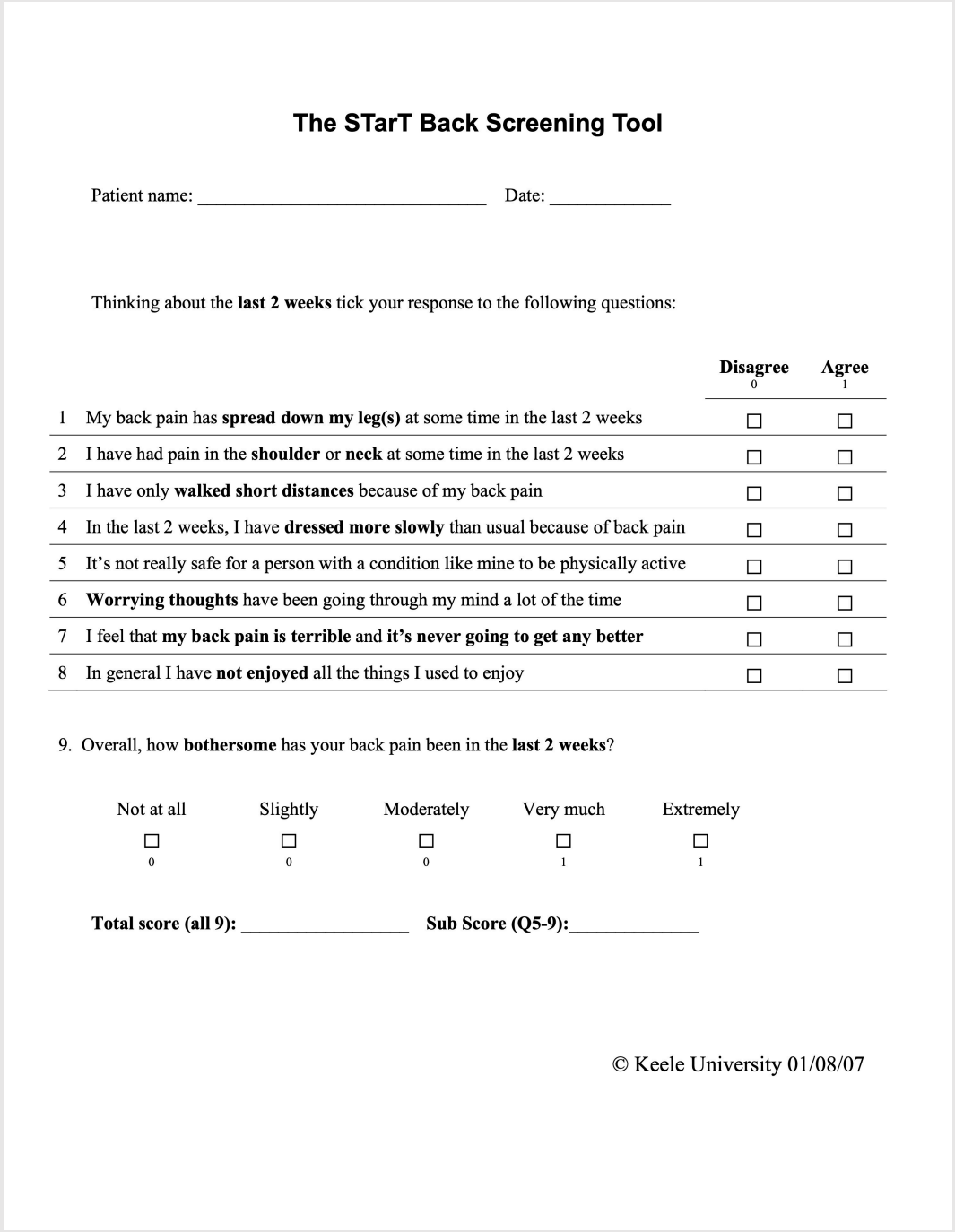
- An estimated 264 million work days are lost in the United States due to back pain annually [5]
- A survey by the US medical expenditure panel showed more than 57.1 million patient visits annually for back pain [5]
- In 2015, backpain related costs in the US totaled over 62.3 billion dollars [5]
- Low back pain generally requires multiple visits, often with referrals [3]
- Chronic back pain can be a huge financial burden to patients, and not all patients benefit from the same treatment [3]

Community Perspective

David Simcoe DO Thomas Chittenden Health Center	Harry Sullivan PT Green Mountain Rehab
“One benefit of a stratified model is the fact that it gives you a standardized way to compare what did and did not work for patients. Ideally the outcomes you get would be more reproducible--and having an objective measure would allow different providers to better communicate about patients.”	“Using a stratified model for back pain would help tremendously with resource allocation. We need some way to triage patients so that low risk individuals are not being overtreated, and those with severe disability are not being undertreated.”

Intervention

- The Keele STarT back tool is a validated screening tool used to stratify patients into different treatment groups based on the severity of their back pain symptoms. [3]
- The STarT back tool has been shown to reduce healthcare expenditure on back pain while improving patient outcomes. [1] [6]
- Patients are placed into the following risk groups based on their score:
  - Low risk: At home management with physician guidance using medications, basic stretching and strengthening exercises, comfort measures, and rest.
  - Medium risk: Physical therapy referral with a focus on improving quality of life and preventing chronic pain
  - High risk: Multidisciplinary management with orthopedic evaluation, cognitive behavioral therapy, and pain clinic evaluation



The STarT Back Screening Tool

Patient name: _____ Date: _____

Thinking about the **last 2 weeks** tick your response to the following questions:

		Disagree 0	Agree 1
1	My back pain has **spread down my leg(s)** at some time in the last 2 weeks	☐	☐
2	I have had pain in the **shoulder** or **neck** at some time in the last 2 weeks	☐	☐
3	I have only **walked short distances** because of my back pain	☐	☐
4	In the last 2 weeks, I have **dressed more slowly** than usual because of back pain	☐	☐
5	It's not really safe for a person with a condition like mine to be physically active	☐	☐
6	**Worrying thoughts** have been going through my mind a lot of the time	☐	☐
7	I feel that **my back pain is terrible** and **it's never going to get any better**	☐	☐
8	In general I have **not enjoyed** all the things I used to enjoy	☐	☐

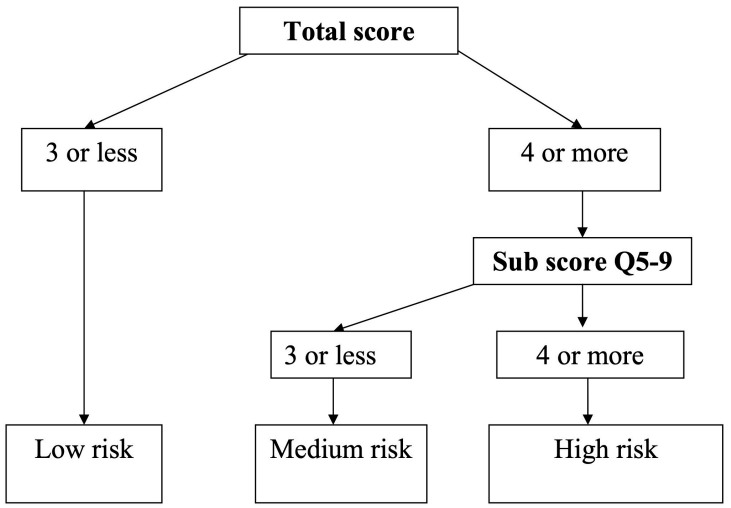
9. Overall, how **bothersome** has your back pain been in the **last 2 weeks**?

Not at all	Slightly	Moderately	Very much	Extremely
☐ 0	☐ 0	☐ 0	☐ 1	☐ 1

Total score (all 9): _____ **Sub Score (Q5-9):**_____

Intervention

- The STarT back tool was uploaded as an accessible resource in the clinic's EMR.
- Providers were informed about the utility of the back tool and given information regarding treatment protocols for low, medium, and high risk patients.
- Providers will implement the tool by distributing it to patients presenting with a new diagnosis of back pain



Response

- Overall, response to the project was positive
  - *Providers felt that the questionnaire was not too long or cumbersome*
  - *They felt that this tool provides an additional resource in addition to their clinical judgement in more nuanced cases*
  - *They saw the back tool as being a useful resource to show patients who felt unsure as to why they did or did not need certain interventions for their back pain*

Evaluation of Effectiveness/Limitations

- Evaluation
  - *One option would be a follow-up study to gauge patient satisfaction with their treatment over a set time period when treated using the stratified approach versus traditional approach*
  - *An additional study could look at number of return visits to primary care for persistence of back pain to assess if return visits are less when a stratified approach is used*
- Limitations
  - *Not all patients fit neatly into a risk category, and sometimes the patient-provider relationship may allow for more accurate assessment of risk.*
  - *Patients may be weary of having yet another form or questionnaire to complete*

Recommendations for Future Projects

- Possible future projects could center around increasing the number of different risk appropriate interventions available for patients
  - *For example, provide education or resources on yoga as a useful modality for low risk individuals*
- Another possibility is to identify the areas of greatest need for back pain patients
  - *Perhaps cognitive behavioral therapy is not widely available in the region despite its efficacy for higher risk individuals*
- Lastly, one possibility would be to interview patients and providers regarding the STarT back tool and identify questions that need to be modified or added to the questionnaire to better triage pain

References

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