



The Patient's Perspective on Clinical Trial Participation

Amy Leitman, JD
Director of Policy & Research
NTM Info & Research

Disclosures

The speaker is employed by NTM Info & Research, a nonprofit advocacy group for patients with nontuberculous mycobacterial disease.

The speaker has no financial conflicts of interest.

What Do Patients Need and Want in Therapies?

More & Better Options

- New options that work against MDR pathogens
- Tolerated by those with drug allergies or sensitivities
- Options against susceptible pathogens which still fail therapy

Adjunct Therapies

- Bacteriophage therapy
- Targeted therapies to overpower resistance mechanisms
- Side effect management

Better Clinical Trials

- Criteria
- Design
- Endpoints

What Else Will Help Patients?

Diagnostics

- Faster identification of the pathogen can get them on the right treatment faster
- Can also help enroll them in clinical trials faster

Susceptibilities

- Faster susceptibility testing to:
 - Identify MDR or susceptible pathogens
 - Determine eligibility for clinical trial based on resistance profile of the pathogen

What Else Will Help Patients?

Adjunct Therapies

Bacteriophages – working in combination with antibiotics

Therapies developed specifically to overcome resistance mechanisms

Management or mitigation of symptoms and side effects:

- Protection or restoration of microbiome
- Pretreatment or adjunct: antiemetics, others

What Are Key Challenges to Enrolling in Clinical Trials?

Time

- Critical infections may not allow a lot of time to determine eligibility to enroll in a clinical trial

24-Hour
Rule

- Patients on antibiotics for more than 24 hours are often excluded from clinical trials

What Are Key Challenges to Enrolling in Clinical Trials?

Decision
Capability

- As the health crisis increases, the patient or legal representative hears more through a “filter of fear”

Exclusionary
Criteria

- Diabetics often excluded, cancer patients almost always excluded, yet they are significant users of antibiotics

Case Study: Risk Factors & Early Consent

- Male, 43 years old
 - Morbid obesity
 - Diabetes
 - Poor dietary habits
 - Probable undiagnosed depression

Case Study: Risk Factors & Early Consent

- Developed pain in left foot
- Sought treatment after 10 days
- MRSA infection identified
 - Antibiotic treatment started
 - Pinky toe and surrounding tissue amputated
 - Hyperbaric chamber treatments
 - ~50 additional surgeries resulting in debridement of surrounding tissue and muscle
- Discharged from hospital after ~10 months

Case Study: Risk Factors & Early Consent

- Developed symptoms again after ~6 months
- Sought treatment quickly – motivated by prior experience
- Treatments administered
 - Antibiotic treatment
 - Hyperbaric chamber treatments
- Discharged from hospital after ~2 weeks

Case Study: Risk Factors & Early Consent

- Symptomatic again ~4-5 months later
- Again sought treatment quickly
- Antibiotic therapy started again
- Hospitalized for ~5 weeks
- Began showing symptoms of sepsis
- Patient comatose for last 2 weeks
- Multiple organ failure leading to patient's death

Case Study: Risk Factors & Early Consent

Patient's family and friends made the following observations:

“Lack of options” were absolutely one of the reasons he did not survive his illness.

“Find people who have gone through more than one infection.”

Bringing the Patient Experience into Clinical Trials

What
should
we
measure?

Microbiology

Symptoms

Patient Reported Outcomes

What Can Patients Tell Us About Their Illness?

Pain

Fatigue

Dyspnea

Cough/Sputum/Hemoptysis

Poor Appetite

Muscle Weakness

Cognitive Dysfunction

Mental Health Issues

Sleep Disruption

Gastric Problems

- Use of PRO tools in oncology has resulted in a robust drug development pipeline
- Example: topotecan was granted PRO-based product labeling claims for symptom improvement
- Used a Symptom Distress Scale in patients with small-cell lung cancer
- Four-category symptom scale:
 - Shortness of breath
 - Interference with daily activity
 - Fatigue
 - Hoarseness
 - Cough
 - Insomnia
 - Anorexia
 - Chest pain
 - Hemoptysis

Table 2 Oncology Clinical Trials by Disease, with Quality of Life, Symptom Measures, or PROs as Study End Points

Cancer type	Total cancer trials, N	Trials with any PRO measures, N	HRQOL	Symptoms	Other PROs ^a
Multiple	6	5	4	2	1
Breast	69	55	46	11	6
Bone	6	5	5	4	–
Colorectal	37	36	28	6	4
Lymphoma	31	19	18	2	1
Leukemia	42	31	27	1	4
Lung	100	94	83	28	10
Pancreas	26	21	19	4	2
Prostate	45	41	36	12	2
Kidney	22	19	14	7	4
Liver	28	28	27	6	2
Brain	26	24	22	3	–
Head/neck	18	17	15	4	–
Melanoma	9	8	8	–	–
Ovarian	26	24	21	4	3
Hematologic ^b	42	37	35	11	2
Other ^c	103	81	71	26	4
Total	636	545	–	–	–

^aIncludes general PRO instruments that do not directly capture HRQOL or symptoms (eg, Cancer Therapy Satisfaction Questionnaire, patient preference) and trials that did not specify the PRO end point or a nonspecific term of PRO was used.

^bHematologic cancers include, but are not limited to, myelofibrosis, polycythemia vera, multiple myeloma, and myelodysplastic syndromes.

^cOther cancers include, but are not limited to, uterine, gastrointestinal, thyroid, and bladder.

HRQOL indicates health-related quality of life; PRO, patient-reported outcome.

Table 2A. Proportion Reporting Symptoms During Resolution of Pneumonia*

Symptom	Percentage by Time from Diagnosis				
	Prepneumonia	Day 0	Day 7	Day 30	Day 90
Fatigue	29	93	80	65	51
Cough	16	90	82	53	32
Dyspnea	16	68	50	36	28
Sputum	10	63	59	40	27
Pleuritic chest pain	3	47	22	12	8

Table 2B. Proportion Reporting Moderate to Severe Symptoms During Resolution of Pneumonia*

Symptom	Percentage by Time from Diagnosis				
	Prepneumonia	Day 0	Day 7	Day 30	Day 90
Fatigue	10	79	48	28	20
Cough	7	80	51	23	13
Dyspnea	2	41	15	7	6
Sputum	3	39	23	12	8
Pleuritic chest pain	1	38	11	5	2

How far out do we measure with a PRO?

Metlay, J P et al. "Measuring symptomatic and functional recovery in patients with community-acquired pneumonia." *Journal of general internal medicine* vol. 12,7 (1997): 423-30. doi:10.1046/j.1525-1497.1997.00074.x

Talking to the Patient: Messaging Matters

Medical

“Hey Doc, I
have dyspnea!”

Patient “I’m short of
breath.”
“I’m having
trouble
breathing.”

Talking to the Patient: Messaging Matters

Consent

- Clear language
- Don't use only dense medical terminology
- Take the time to explain and answer questions

Risks

- Possible adverse events and the probabilities (if known) of those occurring
- What happens if the patient isn't responding to therapy during the clinical trial

Benefits

- How might this help the patient
- How might this help others
- Why is this drug being developed



Talking to the Patient: Messaging Matters

- *Panthera tigris* (“tiger”)
- Claws:
 - Curved
 - Retractable
 - Grow up to 10 cm long



Talking to the Patient: Messaging Matters

- Very Big Cat / Danger Kitty
- Murder Mittens



NTM Info & Research, Inc.

1550 Madruga Avenue, Suite 230
Coral Gables, Florida 33146

305.667.6461 ext. 32
amy@ntminfo.org
www.ntminfo.org



@NTMinfo



facebook.com/NTMinfo



youtube.com/ntmir

Learn more and sign up for the latest news at ntminfo.org