



NEMO and NF-κB Related Disorders

Patient Initials: ___/___/___

Patient Identification:

Patient Name (first, middle, last) _____

Patient's USIDNET Registry Number assigned after online enrollment _____

Date of Birth ___/___/___ (mm/dd/yyyy) or Year of Birth _____

Gender: male [], female []

Home Address:

Address: _____

State: _____

Zip Code: _____

Phone: _____

Email: _____

State or Province of birth: _____

Country of birth: _____

Date of this Record Completion (mm/dd/yyyy): ___/___/___

Date of Visit (mm/dd/yyyy): ___ / ___ / ___

Is this the initial registration of this patient[] or follow-up?[]

Submitting Physician Information:

Name: _____

Address: _____

State: _____

Zip Code: _____

Phone: _____

Email: _____

Fax: _____

NF-κB Registry Data Collection Form

Patient Initials: ___ / ___ / ___

Spectrum of Disease

NF-κB defects: Patients with immunodeficiency and an *IKBKG* (NEMO/IKK γ)(XL) or *NFKBIA* (I κ B α)(AD) gene mutation, may have ectodermal dysplasia (sparse hair, conical teeth, anhidrosis/hypohydrosis) and suffer from multiple and severe pyogenic bacterial or mycobacterial infections. Immunologically, patients have variable defects in immunoglobulin isotype switching, impaired responses to ligands of the Toll-like receptors and interleukin-1-receptors and TNF-family receptors. Patients with *NFKBIA* (I κ B α)(AD) defects may have, in addition, a T cell immunodeficiency characterized by poor memory T cells and anti-CD3-induced T cell proliferation. Many NEMO patients will not have the ectodermal dysplasia phenotype, but will have a fully penetrant immunodeficiency.

Diagnostic Criteria

Definitive NEMO/I κ B

Mutation in either of the following genes: *IKBKG* (NEMO, IKK γ), *NFKBIA*(I κ B α) and one of the following

- Serum IgG concentration at least 2 SD below the normal for age
- Reduced or Absent toll-like receptor-induced TNF
- Ectodermal dysplasia
- Maternal cousins, uncles, or nephews with confirmed diagnosis of NEMO deficiency
- Family history of *IKBKG* or *NFKBIA* mutation.
- atypical mycobacterial infection
- pneumocystis disease
- disseminated cytomegalovirus

Probable NEMO/I κ B

Mutation in either of the following genes: *IKBKG* (NEMO, IKK γ), *NFKBIA* (I κ B α), or four of the following:

- Serum IgG concentration at least 2 SD below the normal for age
- Reduced or Absent toll-like receptor-induced TNF
- Ectodermal dysplasia
- IgA greater than 2 SD above the normal for age
- Functional NK cell deficiency
- deficient antigen-induced lymphocyte proliferation
- atypical mycobacterial infection
- pneumocystis disease
- disseminated cytomegalovirus
- septicemia
- Osteopetrosis
- lymphadema

Possible NEMO/I κ B:

Any three of the following:

- Serum IgG concentration at least 2 SD below the normal for age
- Reduced or Absent toll-like receptor-induced TNF
- Ectodermal dysplasia
- IgA greater than 2 SD above the normal for age
- Serum IgM concentration at least 2 SD above normal for age
- Defective polysaccharide-specific antibody production
- Functional NK cell deficiency
- deficient antigen-induced lymphocyte proliferation
- atypical mycobacterial infection
- pneumocystis disease
- disseminated cytomegalovirus
- septicemia
- Osteopetrosis
- lymphadema

NF-κB Registry Data Collection Form

Patient Initials: / /

Genetic Information []

Pattern of inheritance:

Sporadic [] (no family history), X-linked [], or autosomal recessive []

Skewed X-chromosome Inactivation in mother / related female carrier (who?)

Yes [], No [], Not tested []

Pedigree Analysis []

Family history unknown []

Please list additional relationships. If more space is needed, please use the Memo section at the end of this form.

Relation	Disease – alive	Disease – dead	Tested Normal	Carrier	Not Tested	Unknown	Undiagnosed with suggestive symptoms
Mother							
Father							

Information on Other Affected Kindred Members listed above (e.g., sibling, cousin, &/or maternal uncle):

Relation	Initials	Gender	Year of Birth	Listed in Registry? Yes/No/Unknown

Gene Mutation []

IKBKG NEMO, *IKK-γ* [], *NFKBIA* ($I\kappa B\alpha$), other (specify)

(Number nucleotides using Human Mutation 11:1-3, 1998)

Nucleotides affected (e.g., 361C>T)

Predicted Amino Acid Change (e.g., W140R)

Insertion / Deletion / Frameshift / Splice Site (please explain)

Mutation tested but not found [] which gene(s)

Publications (please give citation - if published)

Protein expressed? Yes , No , Not tested Western [] FACS []

NF-κB Registry Data Collection Form

Patient Initials: ___/___/___

Additional Clinical Features of Special Note List all complications in the comment field at the end of this section *.

	Not Seen	Observed	Prominent in this Patient	Unknown
Lymphoid hyperplasia				
Neutropenia				
Leukocytosis				
Ectodermal Dysplasia				
Dermatitis				
Skin appendages				
Anhidrosis (lack of sweating)				
Osteopetrosis				
Inflammatory Bowel Disease				
Enterocutaneous fistulas				
Macrophage activation syndrome/HLH				
Other (explain)				
Comments:				

Autoantibodies

	Yes	No	Unknown	Not Tested
ANA positive				
Anti-neutrophil antibody				
Anti-platelet antibody				
Coomb's positive (direct)				
Other auto-antibodies (specify) _____				

NEMO-specific immunological studies

Toll-like receptor function: All receptors tested abnormal [], Some receptors tested abnormal [], Normal function []
Unknown []

Response to TNF: Absent [], Decreased [], Normal [], Unknown []

CD40 function: Abnormal CD40-induced class switching [], Abnormal CD40-induced proliferation [], abnormal CD40-induced B cell activation [], normal CD40 function [], Unknown []

IκB degradation –absent [], reduced [], normal [], Unknown []

NF-κB Registry Data Collection Form

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Other treatments used List all complications at the end of this section *.

	Unknown	Yes	No	Age begun	OR Date begun (mm/dd/yyyy)	Duration	Still needed?	
							Yes	No
Chronic oxygen								
Enteral nutrition								
Parenteral nutrition								
Chronic systemic immunosuppression								

Other? Please explain

***** Complications to any surgery/treatment listed above (list and explain):**
