

Forensic Examination of Medical Records

Mary Kelly

Document Examiner

Forensic Examination of Medical Records

1. Original Documents Are Required
2. All testing done is non-destructive
3. Instrumental analysis will include:
 - visual examination
 - microscopic examination
 - infrared & ultraviolet ink analysis (VSC)
 - indented impression analysis (ESDA)

Examination Techniques

Each case requires a somewhat different approach, yet there are fundamental procedures to follow in any records review.

- Basic background information (establishes the framework by which to determine the significance of test results)
- Establish the scope of the examination
Entire record vs. partial record

Testing

- All aspects of record are examined, including:
- Overwriting, erasures, stains, staple holes, hole punches, tears and discolorations
- Ink – beginning with any noted visual differences which would warrant additional testing
- Paper – noted differences within pages of the chart
- Indented Impressions

Results of Examination

The Document Examiner uses science and indisputable physical fact to discover and demonstrate the truth about the record.

Forensic techniques are used to locate and define any alterations that were made to the record.

VSC Video Spectral Comparator

A closed circuit television system that allows for direct, real-time viewing of ultraviolet and infrared examinations.

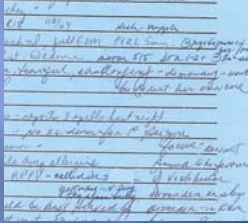
Ultraviolet and infrared examinations are useful in differentiating between inks, deciphering obliterations, erasures and alterations.

The underlying theory is that writing inks respond differently when illuminated by light of specific wavelengths. This is based upon the different chemical composition and dye components of each ink.

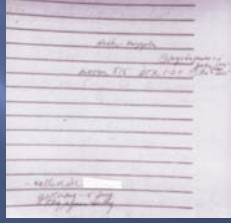
VSC Video Spectral Comparator



Example #1



Page from Record



VSC Image

ESDA

Electrostatic Detection Apparatus

The ESDA is based upon the electrostatic property of paper. Paper will hold a charge differently when the fibers have been compressed (i.e. indented) versus when they have not.

The ESDA operates by exposing the paper to a positive charge and then developing the image using negatively charged toner. The results are preserved using an adhesive laminate.

This evidence can have great significance in the examination of medical records. This is due to the fact that medical records contain numerous documents and as notes are added to the chart they become impressed into the pages below.

ESDA

Electrostatic Detection Apparatus

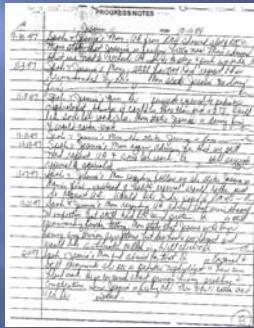


Example #2

This case involved a suspected page substitution.

An impression analysis of the record was conducted to determine if entries from the Progress Notes were indented into pages of the record. Once deciphered, these developed impressions were compared to the current Progress Note to see if the page had been substituted.

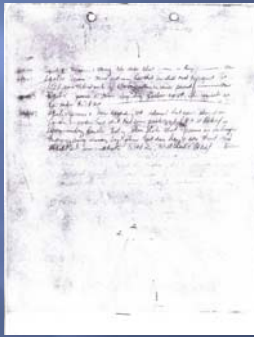
Suspected Substitute Progress Note



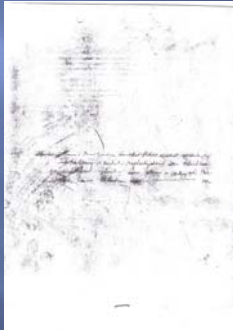
ESDA Lift from back side of folder



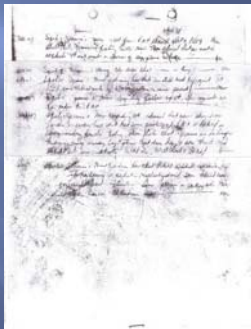
ESDA Lift from page of six of chart



ESDA Lift from page five of chart



Compilation of three ESDA lifts

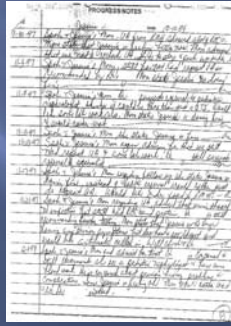


Nurses Notes by Cathy M.

The Original



The Substitute



Five horizontal lines for writing.

Nurses Notes by Cathy M.

The Original

9:30:07 Spoke with Jessica's Mom - UK from MOM showed a lot of BNC's. Mom states that Jessica is having better now. Mom advised that we need to recheck UK in four weeks or sooner if symptoms are better. CM

The Substitute

9:30:07 Spoke with Jessica's Mom - UK from MOM showed a lot of BNC's. Mom states that Jessica is having better now. Mom advised that we need to recheck UK. She is to try and pick up order. CM

Five horizontal lines for writing.

Nurses Notes by Cathy M.

The Original

9:30:07 Spoke with Jessica's Mom - UK from MOM showed a lot of BNC's. Mom states that Jessica is having better now. Mom advised that we need to recheck UK in four weeks or sooner if symptoms are better. CM

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Five horizontal lines for writing.

Nurses Notes by Cathy M.

9-30-97 Entry

The Original

9-30-97 Spoke with Jessica's Mom - UA from RMH showed a lot of RBC's. Mom states that Jessica is feeling better now. Mom advised that we need to recheck UA in four weeks or sooner if symptoms are better. CM

The Substitute

9-30-97 Spoke with Jessica's Mom - UA from RMH showed a lot of RBC's. Mom states that Jessica is feeling better now. Mom advised that we need to recheck UA. She is to stop and pick up coffee. CM

Nurses Notes by Cathy M.

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The Original

9-30-97 Spoke with Jessica's Mom - UA from RMH showed a lot of RBC's. Mom states that Jessica is feeling better now. Mom advised that we need to recheck UA in four weeks or sooner if symptoms are better. CM

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Nurses Notes by Cathy M.

11-8-97 Entry

The Original

[Redacted]

The Substitute

11-8-97 Spoke with Jessica's Mom. Dr. **** suggests referral to pediatric nephrologist, thinks it could be more than just a UTI. Would like some lab work also. Mom states Jessica is doing fine and would rather wait. CM

Nurses Notes by Cathy M.

11-8-97 Entry

The Original

[Redacted]

The Substitute

11-8-97 Spoke with Jessica's Mom. Dr. **** suggests referral to pediatric nephrologist, thinks it could be more than just a UTI. Would like some lab work also. Mom states Jessica is doing fine and would rather wait. CM

Nurses Notes by Cathy M.

11-17-97 Entry

The Original

11-17-97 Spoke with Jessica's Mom regarding followup UA. She requests we fax order to RHRH. CM

The Substitute

11-17-97 Spoke with Jessica's Mom regarding follow up she states Jessica is doing fine, instead of labs and referral would rather just do repeat UA. Would like order faxed to RHRH. CM

Nurses Notes by Cathy Mason

11-17-97 Entry

The Original

11-17-97 Spoke with Jessica's Mom regarding followup UA. She requests we fax order to RHRH. CM

The Substitute

11-17-97 Spoke with Jessica's Mom regarding follow up she states Jessica is doing fine, instead of labs and referral would rather just do repeat UA. Would like order faxed to RHRH. CM

**Closing Thoughts
& Questions**
